LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FIRST SEMESTER – **NOVEMBER 2018**

16/17/18UPB1MC01/ PB 1508 – ALGAE AND BRYOPHYTES

Date: 24/10/2018 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

PART-A

Answer the following, each within 50 words (10 x 2 = 20 Marks)

1. What is phycocyanin
2. What are hormogonia?
3. What is auxospore?
4. What are frustules?
5. List out the importance of algal biomass?
6. What is Agar-agar?
7. What is gemma cup?
8. What are fossil bryophytes?
9. Write a note on protonema.
10. Comment on peristome.

PART- B

Answer the following, each within 500 words. Draw diagrams whenever necessary

(5 x 7 = 35 Marks)

11(a) Explain the thallus organization in algae

(or)

(b) Describe the salient features of Phaeophyceae (Brown algae)

12(a) Describe the thallus structure of *Volvox* colony.

(or)

(b) Briefly explain the sexual reproduction in *Gracillaria*.

13(a) Write short notes on single cell proteins from algae.

(or)

(b) List out the salient features of cyanobacteria. Add note on its application in agriculture.

14(a) List out the salient features of Hepatcopsida.

(or)

(b) Write notes on the economic importance of Bryophytes.

15(a) Outline the classification of Bryophytes by Rothmaler (1951).

(or)

(b) Explainthe life cycle of *Anthoceros.*

PART-C

Answer <u>any three</u> of the following, each within1200 words. Draw diagrams whenever necessary. (3 x 15 = 45 Marks)

16. Discuss the salient features of F.E.Fritsch classification of algae.

17. Describe the thallus structure and sexual reproduction in *Sargassum*.

18. Discuss in detail about various commercial products from algae and their uses.

19. Explain in detail about the structure of antheridium, archegonium and the sporophyte in *Marchantia*.

20. Explain the vegetative and reproductive structure of *Funaria*.

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