



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

FIRST SEMESTER – NOVEMBER 2011

PB 1505/PB 1502 - PLANT DIVERSITY - I (ALGOLOGY, MYCOLOGY, BRYOLOGY)

Date : 08-11-2011
Time : 1:00 - 4:00

Dept. No.

Max. : 100 Marks

PART – A (20 Marks)

Answer ALL the questions

I. Choose the correct answer:

(5 x 1 = 5)

1. Match with

- (A) Cyanophyceae (B) Phaeophyceae (C) Bacillariophyceae (D) Rhodophyceae.
(i) Laminarin (ii) Raphe (iii) Heterocyst (iv) Floridean starch.
(a). A-iii, B-i, C-ii, D-iv.
(b). A-iv, B-ii, C-iii, D-i.
(c). A-iv, B-iii, C-i, D-ii.
(d). A-i, B-ii, C-iv, D-iii.

2. Statement 1: *Volvox* is a oogamous algae.

Statement 2: In *Volvox*, male sex organ is called globule.

- (a) Statement 1 is incorrect and Statement 2 is correct.
(b) Statement 1 is correct and Statement 2 is incorrect.
(c) Statement 1 and Statement 2 are incorrect.
(d) Statement 1 and Statement 2 are correct.

3. Pick the odd one out

- (a) Apothecium (b) Basidiocarp (c) Cleistothecium (d) Plasmodium

4. Statement 1: *Colletotrichum* reproduces by Basidiospore.

Statement 2: *Colletotrichum* is a imperfect fungi.

- (a). Statement 1 is false and Statement 2 is true
(b). Statement 1 is true and Statement 2 is false
(c). Statement 1 and Statement 2 are true.
(d). Statement 1 and Statement 2 are false.

5. Gemma is found in

- (a). *Anthoceros* (b). *Marchantia* (c). *Funaria* (d). *Riccia*.

II. State whether the following are true or false:

(5 x 1 = 5)

6. Alginic acid is manufactured from cyanophyceae.
7. *Polysiphonia* produces cystocarp.
8. *Puccinia* is a coprophilous fungi.
9. *Peziza* reproduces by producing apothecium.
10. In *Funaria*, antheridia and archegonia are found on different plants.

III. Complete the following:

(5 x 1 = 5)

11. Carrageenin is obtained from _____.
12. *Ectocarpus* reproduces asexually by producing _____.
13. In fungi, _____ is used for absorbing nourishment from the host.
14. White rust is caused by _____.
15. *Anabaena* is recorded inside the thallus of _____.

IV. Answer the following within 50 words each:

(5 x 1 = 5)

16. What is a coenocytic thallus?
17. What is a coenobium?
18. What is a perfect stage in a fungus?
19. Define receptive hypha.
20. Write about the scales and rhizoids of *Marchantia*.

PART – B

Answer within 500 words each, draw the diagram wherever necessary:

(5 x 7 = 35)

21. a) Give a brief account on pigmentation in algae.
[Or]
b) Describe diplobiontic type of life cycle with an example.
22. a) Describe structure and asexual reproduction in *Volvox*.
[Or]
b) Give a brief account on the reproduction in *Polysiphonia*.
23. a) Describe thallus organization in fungi.
[Or]
b) Give an account on the economic importance of fungi
24. a) Describe the life cycle of *Polyporus*.
[Or]
b) Give the salient features of any 2 fungal classes.
25. a) Describe the structure of archegoniophore of *Marchantia*.
[Or]
b) Give the structure of gametophyte of *Funaria*.

PART – C

Answer any THREE questions. Each answer within 1200 words each:

Draw the diagram wherever necessary:

(3 X 15 = 45)

26. List out the Principles of classification of algae and enumerate the salient features of algal divisions.
27. Write an essay on the economic importance of algae.
28. Give the life cycle of *Neurospora*.
29. Briefly describe the life cycle of heteroecious fungi that you have studied.
30. Differentiate the sporophyte of *Anthoceros* and *Funaria*.

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