

(6 pages)

Reg. No. :

Code No. : 7404

Sub. Code : HBOM 11

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2015.

First Semester

Botany

PLANT DIVERSITY I – ALGAE, FUNGI, LICHENS
AND BRYOPHYTES

*(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. The sea weeds belong to
(a) Chlorophyceae (b) Myxophyceae
(c) Bacillariophyceae (d) Phaeophyceae
2. Polysiphonia is a member of
(a) Ceramiales (b) Gelidiales
(c) Nemalionales (d) None of the above

3. Agar — agar is obtained from
(a) Polysiphonia (b) Batrachospermum
(c) Nemalion (d) Gracilaria
4. Knop's solution is recommended for the growth of
(a) Blue green algae (b) Green algae
(c) Yellow green algae (d) Red algae
5. Parasexuality is reported in
(a) *Aspergillus nidulans*
(b) *Mucor hiemalis*
(c) *Cercospora personata*
(d) *Puccinia striiformis*
6. Example of edible mushroom
(a) *Agaricus bisporus* (b) *Volvariella volvacea*
(c) *Pleurotus sajorcaju* (d) All the above
7. The leathery lichen *Umbilicaria* is commonly known as
(a) Iceland mass (b) Root tripe
(c) Reindeer mass (d) Lung wort

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8. The lichens possess leaf like thalli are called
 (a) Crustose (b) Foliose
 (c) Fruticose (d) Both (b) and (c)
9. Leptoids are present in
 (a) Sphagnum (b) Polytrichum
 (c) Anthoceros (d) Marchantia
10. Development of a sporophyte directly from the sporophytic tissue is called
 (a) Apospory (b) Parthenogenesis
 (c) Apogamy (d) Syngamy

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Briefly describe the reproduction of Polysiphonia.
 Or
 (b) Give the characteristic features of diatoms.

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12. (a) Describe the harmful aspects of algal production.

Or

- (b) Explain fossil algae.

13. (a) What are the general characteristics of fungi?

Or

- (b) Write briefly on origin of fungi.

14. (a) Lichen synthesis — Explain.

Or

- (b) What are the ecological importance of lichens?

15. (a) Write short notes on the gametophytic structure of Riccia.

Or

- (b) Describe the characteristic features of Sphagnum.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the asexual and sexual reproduction in *Vaucheria*.

Or

- (b) Give an account of habit, structure and methods of reproduction in *Nostoc*.

17. (a) Write an essay on growing fresh water algae in the laboratory condition.

Or

- (b) Narrate the ecology of algae.

18. (a) Give an account of general characteristics of Zygomycetes.

Or

- (b) Describe homothallism and heterothallism in fungi.

19. (a) List out the economic importance of lichens.

Or

- (b) Explain the structure of different types of lichens with neat diagrams.

20. (a) Give the classification of bryophytes proposed by Smith and Rothmaller.

Or

- (b) Give an account of the evolution of gametophytes and sporophytes in bryophytes.

