

OCTOBER 2012

P/ID 40222/PBTB

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Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

1. Apospory.
2. Elaters.
3. Columella.
4. Acrogenous.
5. Protostele.
6. Clubmoss.
7. Synangium.
8. Leptosporangiata.
9. Sporocarp.
10. Tassels in *Osmunda*.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Give a brief account of the salient features of Bryophytes.

Or

- (b) Write notes on fossil Bryophytes.

12. (a) Discuss the origin of Bryophytes.

Or

- (b) Write notes on:

(i) Tubers.

(ii) Gemmae.

13. (a) Give the salient features of the class Hepaticopsida.

Or

- (b) Briefly explain the method of vegetative reproduction in Riccia.

14. (a) Comment briefly on the classification of Pteridophytes, proposed by Reimer.

Or

- (b) Write notes on the structure of spore producing organ in Psilotum.

15. (a) Explain the nature of leaves in Azolla.

Or

- (b) Give the external morphology of Salvinia.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Discuss the various views regarding the evolution of sporophyte in Bryophytes.

Or

- (b) Among the sporophytes of Riccia and Anthoceros, which is more primitive? Why?

17. (a) Trace the evolution of gametophytes in Bryophytes.

Or

- (b) Give an illustrated account on the structure of capsule in Funaria

18. (a) Give a detailed account of the chief methods of vegetative propagation in Bryophytes.

Or

- (b) Write notes on:
- (i) incubous arrangement of leaves in Porella.
  - (ii) External morphology of gametophyte of Pallavicinia.

19. (a) Write a detailed account on the evolution of steles.

Or

- (b) Describe the external morphology and structure of sporophyte of Osmunda.

20. (a) Discuss the structure of the sporocarp of Marsilea and comment briefly on its morphological nature.

Or

- (b) Write an essay on telome theory.