

OCTOBER 2011

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.

Write short notes on:

1. Sporogonium.
2. Homologous theory.
3. Calyptra.
4. Elater.
5. Juvenile stage.
6. Apogamy.
7. Eusporangiate.
8. Rhizomorph in *Isoetes*.
9. *Anabaena azollae*.
10. Plectostele.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Why are bryophytes called the amphibians of plant kingdom?

Or

- (b) Write a brief account of fossil bryophytes.

12. (a) Compare the gametophytic and sporophytic generations of *Riccia*.

Or

- (b) Write Watson system of classification of Bryophytes.

13. (a) Explain the vegetative reproduction in *Sphagnum*.

Or

- (b) Give an account on external structure of gametophyte of *Polytrichum*.

14. (a) Write an account on Telome theory.

Or

- (b) List out the economic importance of Pteridophytes.

15. (a) Explain the micro and macrosporangium of *Isoetes*.

Or

- (b) Give a brief account on sexual reproduction in *Osmunda*.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Write an essay on the structure of sporogonium in Bryophytes.

Or

- (b) Describe the life cycle of *Funaria* with the help of labelled sketches.

17. (a) Describe the sexual life cycle of *Porella*.

Or

- (b) Describe the structure of sporangium of *Anthoceros* with the help of diagram.

18. (a) Write an essay on heterospory and origin of seed habit.

Or

- (b) Write an account on evolution of gametophyte in Pteridophytes.

19. (a) Give a detailed account on Remier's system of classification of Pteridophytes.

Or

- (b) Describe the types of steles and their evolution in Pteridophytes.

20. (a) Describe the sexual reproduction in *Psilotum*.

Or

- (b) Describe the life cycle of *Salvinia* with the help of diagram.
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