

MAY 2015

P/ID 40222/PBTB

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions each in 50 words.

Define /Explain the following :

1. Protonema.
2. Sporogonium.
3. Perichaetial leaves.
4. Peristome.
5. Bog moss.
6. Globule.
7. Prothallus.
8. Synangium.
9. Eusporangiate.
10. Nitrogen fixing aquatic fern.

PART B — (5 × 6 = 30 marks)

Answer ALL questions each in 250 words.

11. (a) Describe the general characters of gametophyte.

Or

- (b) Explain the economic importance of Bryophytes.

12. (a) Give an account of Fossil Bryophytes.

Or

- (b) Describe the thallus structure of *Riccia* with suitable sketches.

13. (a) Explain the gametophytic structure of *Porella*.

Or

- (b) Explain the anatomical characters of *Sphagnum* leaf.

14. (a) Discuss the biological importance of heterospory.

Or

- (b) Analyse the concept of Telome Theory.

15. (a) Explain the morphological features of *Psilotum* with suitable sketches.

Or

- (b) Describe the anatomical structure of *Selaginella* stem with suitable sketches.

PART C — (5 × 10 = 50 marks)

Answer ALL the questions each in 500 words.

16. (a) Give an account of theories of phylogeny of Bryophytes.

Or

- (b) Describe the various methods of vegetative propagation of Bryophytes with suitable sketches.

17. (a) Explain the internal and external structure of sporogonium of *Anthoceros* with suitable sketches.

Or

- (b) Describe the structure of *Polytrichum* capsule with suitable sketches.

18. (a) Compare the gametophyte structure of *Targionia* with that of *Funaria* with suitable sketches.

Or

- (b) Compare the sporogonium of *Funaria* with that of *Riccia* with suitable sketches.

19. (a) Analyse the various types of Stellar systems found in Pteridophytes.

Or

- (b) Analyse the nature of soral variation found in the major classes of *Pteropsida*.

20. (a) Explain the morphological and anatomical structure of sporocarp of *Marsilea* with suitable sketches.

Or

- (b) Describe the external and internal structure of thallus of *Isoetes* with suitable sketches.