



**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University) Coimbatore-641 043**

Bachelor's Degree Examination – April/May - 2019

Semester II

**Class : I UG
Major : Botany**

**Time :3 hours
Max. Marks: 100**

18BBOC04 Bryophyta and Pteridophyta

Part-A

10 x 1=10

Choose the correct answer

- Bryophytes include.
a. Liverworts and ferns. b. Mosses and ferns
c. Mosses and liverworts d. None of the above
- Elater mechanism of spore disposal is found in
a. *Riccia* b. *Marchantia* c. *Funaria* d. All of the above
- Stomata are present on capsule wall of
a. *Porella* b. *Marchantia* c. *Riccia* d. *Anthoceres*
- The sporophyte grows continuously for a long period due to basal meristem in
a. *Anthoceres* b. *Riccia* c. *Marchantia* d. All of the above
- Spore producing organ in *Psilotum* is known as
a. Strobilus b. Sporangium c. Synangium d. Sorus
- Equistem the sporangium are developed on
a. Upper surface of sporophylls b. Sporangiphores
c. Vegetative leaves d. Lower surface of leaves
- Sporocarp of *Marsilea* is
a. Unisporangiate b. Bisporangiate c. Multisporangiate d. Synangium
- In *Marsilea* the number of leaflets is usually
a. 1 (one) b. 2 (two) c. 3 (three) d. 4 (four)
- Stele in *Lycopodium* is
a. Meristele b. Polystele c. Siphonostele d. actinostele
- Both microsporangia and megasporangia are found in same strobilus
a. *Lycopodium* b. *Adiantum* c. *Selaginella* d. *Psilotum*

Part B
Answer the following
Answer should not exceed 400 words or two pages

5 X 6=30

- 11.a. Explain the structure of the sporangium of *Riccia* with labeled sketch.
(or)
- 11.b. Give a note on the structure of gemma cup in *Marchantia*.
- 12.a. Comment on leaf arrangement in *Porella*.
(or)
- 12.b. Write the thallus anatomy of *Anthoceros*.
- 13.a. Give an illustrated note on strobilus of *Lycopodium*.
(or)
- 13.b. Write a brief note on internal structure of *Equistem* stem with neat diagram.
- 14.a. Bring out the structure of mature sporocarp of *Marsilea*.
(or)
- 14.b. Describe the development of embryo in *Marsilea*.
- 15.a. What is Apospory
(or)
15. b. Comment on Apogamy

Part C
Answer the following
Answer should not exceed 800 words or four pages

5 x 12=60

- 16.a. Outline the classification of Bryophytes.
(or)
- 16.b. Describe the structure of thallus in *Marchantia* with neat diagrams.
- 17.a. Explain the structure of sporangium in *Borella*.
(or)
17. b. Give an illustrated note on structure of sex organs in *Anthoceros*.
- 18.a. Give an account on *Equistem strobillus*.
(or)
18. b. Write the comparative account of different types of gametophytes in *Lycopodium*.
- 19.a. Describe the anatomical features of rhizome and petiole of *Marsilea*.
(or)
- 19.b. Outline the lifecycle of *Marsilea*.
- 20.a. Discuss the stellar evolution in Pteridophytes.
(or)
- 20.b. What is heterospory and write about development of seed habit in Pteridophytes.
