



**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)  
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Bachelor's Degree Examination – June / July 2021**  
**II Semester**

**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**

1. The Scales found in *Riccia* are  
a. multicelled and ligulate  
b. multicelled appendiculate  
c. unicelled and appendiculate  
d. unicelled and ligulate  
CO2 K1
2. The layers developed around the sporogonium of *Marchantia* are  
a. perichaetium  
b. perichaetium and calyptra  
c. perichaetium calyptra and perigynium  
d. none of the above  
CO2 K2
3. Amphigastria is found in  
a. *riccia*  
b. *marchantia*  
c. *porella*  
d. all of the above  
CO2 K1
4. In *Anthoceros* the sporogenous tissue is derived from  
a. amphithecium  
b. endothecium tissue  
c. gametophytic tissue  
d. collumella tissue  
CO5 K2
5. The living example of near telome is  
a. *selaginella*  
b. *lycopodium*  
c. *equisetum*  
d. *psilotum*  
CO1 K1
6. Vallecular canal in *Equisetum* stem is situated  
a. below the ridges  
b. below the furrows  
c. between the ridges and furrows  
d. between the pith and endodermis  
CO2 K4
7. Amphiphloic siphonostele is found in  
a. *psilotum*  
b. *ophioglossum*  
c. *pteris*  
d. *marsilea*  
CO3 K1
8. gradate sorus is found in  
a. *hymenophyllum*  
b. *marsilea*  
c. *psilotum*  
d. *lycopodium*  
CO5 K2
9. Heterospory is found in  
a. *selaginella*  
b. *lycopodium*  
c. *psilotum*  
d. all of the above  
CO5 K1
10. Formation of a sporophyte from a vegetative portion of prothallus is called  
a. apocarypy  
b. apogamy  
c. apomixis  
d. apospory  
CO5 K2

**Part B**  
**Answer ALL questions**  
**Each answer should not exceed 400 words or two pages**

**5 x 6 = 30**

- 11.a. Write a brief note on the structure of *Riccia* thallus with labelled sketch. CO1 K3  
(or)
- 11.b. Comment on the sporophyte of *Marchantia*. CO5 K4
- 12.a. List out the characteristic features of *Porella*. CO2 K4  
(or)
- 12.b. Give note on internal structure of *Anthoceros* thallus and point out the significance of mucilage cavities. CO2 K4
- 13.a. Comment briefly on the structure of strobilus in *Lycopodium*. CO2 K4  
(or)
- 13.b. Write notes on *Equisetum* Cone. CO2 K2
- 14.a. Discuss the external morphology of *Marsilea*. CO2 K2  
(or)
- 14.b. Give a brief note on the internal structure of *Marsilea* rhizome . CO2 K1
- 15.a. What is Apospory? Explain. CO5 K4  
(or)
- 15.b. Brief about Apogamy. CO5 K3

**Part C**  
**Answer ALL questions**  
**Each answer should not exceed 800 words or four pages**

**5 x 12 = 60**

- 16.a. Discuss in detail about sexual reproduction in *Riccia*. CO5 K2  
(or)
- 16.b. Give an illustrated account on thallus structure of *Marchantia*. CO2 K4
- 17.a. Describe the structure and development of antheridia in *Porella*. CO3 K2  
(or)
- 17.b. Draw and write about the structure of mature sporogonium of *Anthoceros*. CO5 K3
- 18.a. With the help of well-Labelled diagrams, discuss the anatomy of stem and root of *Equisetum*. CO2 K2  
(or)
- 18.b. Give the diagrammatic life cycle of *Psilotum*. CO5 K4
- 19.a. Write an illustrated account on the structure of sporocarp of *Marsilea*. CO2 K4  
(or)
- 19.b. Explain the male and female gametophytes in *Marsilea*. CO2 K2
- 20.a. Describe the various types of steles found in Pteridophytes . CO2 K2  
(or)
- 20.b. Write an essay on Heterospory and seed habit of Pteridophytes. CO4 K4

\*\*\*\*\*