

**Class – M.Sc. I (BOT)**

**Subject – BOT- 521**

**Paper – BRYOPHYTES & PTERIDOPHYTES**

**Time Allowed : 3 Hours**

**Maximum Marks : 75**

**Section–A**

**Attempt all. Each carries 1 mark.**

1. (i) Why bryophytes are called Amphibians?
- (ii) Why Anthoceros is called horn wort?
- (iii) Give leaf arrangement in Porella.
- (iv) Describe flash cup mechanism of Pollination.
- (v) Why Isoetes is called strobilus.
- (vi) What is Actinostele & Dictyostele?
- (vii) Why rhizophore is called organ suigenereis?
- (viii) Define synangium & Coenosorus.  $1 \times 8 = 8$

**Attempt any 7. Each carries 3 marks.**

2. Compare gametophyte of Riccia & Marchantia.
3. Give structure of gametophytic thallus of Anthoceros.
4. Compare morphology of Targionia, Cyathodium & Lunularia.
5. Differentiate between Liverworts & Mosses.
6. Write a note on Rhynia.
7. Describe stelar system evolution in Pteridophytes.
8. Differentiate between Ophioglossum & Botrychium.
9. Give anatomical detail of equisetum Rhizome & Stem.

10. Write a note on order Pilotales.

7 x3 = 21

**Attempt any 3. Each carries 7 marks.**

11. (a) Describe in detail development of Antheridia & Archegonia in Marchantiales.
- (b) Give structure of sporogonium of Anthoceros.
12. Give origin of Pteridophytes by Telome theory.
13. Explain in detail origin of Bryophytes.
14. Write an essay on Prothallial evolution in Pteridophytes.
- 15 (a) What is heterospory? Explain in detail with evidences.
- (b) Give economic importance of Bryophytes.

3 x7 = 21

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