

7. (a) Give an account of the ligule and morphological nature of the Rhizophore in Selaginella. 4
- (b) Write a short note on sporophyll of Pteris. 4
8. (a) "The genus Rhynia has both sporophytic and gametophytic generations." Explain. 4
- (b) Describe briefly the reproduction by spores in Selaginella. 4
9. Give an illustrate account of the life-history of Equisetum. 4



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B.Sc. EXAMINATION, 2025

(Second Semester)

(Re-appear Only)

BOTANY

Paper-I

Diversity of Archegoniates

Time : 3 Hours]

[Maximum Marks : 40

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (i) Where and by whom was Rhynia discovered ?
- (ii) What is Elater ? Give one example of plant with elater.
- (iii) The presence of water is essential for completion of life-cycle in Pteridophytes. Why ?
- (iv) What is Peat ?
- (v) Give one difference between moss protonema and green algae.
- (vi) In which plant and where do you find vallecular and carinal canal ?
- (vii) Differentiate between sporogonium and sporangium.
- (viii) Name a bryophyte which has heart-shaped prothallus. **1×8=8**

Unit I

2. Explain the life-cycle of Funaria with the help of diagrams only. **8**

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3. (a) Give a comparative account of external and internal structures of thallus in Marchantia and Anthoceros. **4**
- (b) Describe the structure of mature Sporogonium and Marchantia. **4**
4. Write short notes on the following :
 - (a) Peristome teeth **2**
 - (b) Antheridia of Anthoceros **3**
 - (c) Protonema stage of Funaria. **3**
5. (a) Describe the sexual reproduction of Marchantia. **4**
- (b) Describe the gametophytic phase of Anthoceros. **4**

Unit II

6. Draw labelled diagrams of the following
 - (a) T.S. of Pteris petiole **4**
 - (b) L.S. of Equisetum cone. **4**

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P.T.O.