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M.Sc. (Semester-I) Examination, December 2021

BOTANY

Paper - III

(Biology and Diversity of Bryophyta and Pteridophyta)

Time Allowed : 3 hours *Maximum Marks : 40*

Section-A
(Objective Type Questions) 1×5=5

1. Choose the correct answer :

(i) Which among the following is also known as big moss :

(a) Riccia (b) Marchantia

(c) Sphagnum (d) Funaria

(ii) The thalloid plant body is found in :

(a) Marchantia (b) Sphagnum

(c) Funaria (d) Salvinia

(iii) Sporophytic generation is the dominant phase in life cycle of :

(a) Fungi (b) Bryophyta

(c) Algae (d) Pteridophyta

(iv) Trabeculated endodermis is found in :

(a) Selaginella

(b) Isoetes

(c) Lycopodium

(d) Equisetum

(v) Circinate vernation of leaves is a characteristic feature of :

(a) Azolla

(b) Marsilea

(c) Dryopteris

(d) All of the above

Section-B

(Short Answer Type Questions) **2×5=10**

Note : Attempt all five questions.

1. Describe methods of Vegetative reproduction in Bryophytes.

2. Give a general account of Calobryales

3. Comment on types of fossils and fossilization process.

4. Give two evolutionary significance of selaginella.

5. Give a brief of account of Azolla.

Section-C

(Long Answer Type Questions) 5×5=25

Note : Attempt all the five questions. One question from each unit is compulsory.

1. Give an general account of Jangermanniales?

OR

Describe life cycle of Targionia in detail.

2. Give an account of sporophyte of Anthocerotales. Why do you think it is the most evolved sporophyte in Bryophytes?

OR

Gametophyte is a dominant phase in life cycle of Bryophytes. Explain with examples.

3. Describe in detail stellar organization in pteridophytes.

OR

Describe in detail heterospory and seed habit.

4. Illustrate life cycle of equisetum in detail.

OR

Explain the life cycle of isoetes in detail with help of neat labelled diagrams.

5. Give an account of diversity and distribution of pteridophytes in India.

OR

Describe in detail reproduction in Dryopteris.

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