# 212074

## M.Sc. (Iˢᵗ Semester)
## Examination, December 2022

### Botany

### PAPER - III

# BIOLOGY AND DIVERSITY OF BRYOPHYTA AND PTERIDOPHYTA

*Time Allowed : 3 hours*          ***Maximum Marks  : 40***
                              ***Minimum Marks : 14***

*Note :*   *Attempt all the questions. Options are internal.*

## Section-A

### (Objective Type Questions)          5×1=5

1.   Choose the correct answer :

   (i)   The antheridiophore in plagiochasma is –

   (a)   Horse-shoe shaped

   (b)   Barrel shaped

   (c)   Square shaped

   (d)   Oval shaped

   (ii)   Mucilage cavities are characteristic feature of –

   (a)   Riccia          (b)   Marchantia

   (c)   Funaria          (d)   Anthoceros

P.T.O.

(iii) Heterospory originated from –

    (a) Selaginella

    (b) Equisetum

    (c) Lycopodium

    (d) Rhynia

(iv) Endodermis is trabeculated in–

    (a) Selaginella

    (b) Equisetum

    (c) Marsilea

    (d) Lycopodium

(v) Which of the following is commonly known as Adder's Tongue fern –

    (a) Ophioglossum

    (b) Osmunda

    (c) Azolla

    (d) Dryopteris

## Section-B

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

2. Describe general characters Bryophytes.

**OR**

Give an account of reproductive structures in Marchantia.

3. Describe the internal structure of the thallus of Anthoceros.

**OR**

Describe the morphology and anatomy of Sphagnum plant.

4. Write a short note on heterospory and its importance.

**OR**

Describe various types of fossils with their examples.

5. Describe the sporophyte of equisetum.

**OR**

Describe life cycle of Psilotum.

6. Write a short note on Sporocarp in Salvinia.

**OR**

Describe the structure of Sporocarp in Marsilea.

## Section-C

### (Long Answer Type Questions)     5×5=25

7. Give an account of external morphology and anatomy of gametophytic thallus of Marchantia.

**OR**

P.T.O.

Describe in detail the sporophyte phase of Porela.

8. Give a comparative account of sporophytes in Bryophyta.

**OR**

Describe life cycle of Sphagnum.

9. Give a general account of Psilophytales.

**OR**

Write an essay on Stelar system found in Pteridophytes.

10. Describe life cycle of Lycopodium.

**OR**

Describe life cycle of Isoetes.

11. Describe life cycle of Ophioglassum.

**OR**

Describe life cycle of Azolla.

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