

(i) Printed Pages : 4 Roll No. ....

(ii) Questions : 9 Sub. Code : 

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Exam. Code : 

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B.A./B.Sc. (General) 2<sup>nd</sup> Semester  
1059

BOTANY

Paper-A : Plant Diversity-II

Time Allowed : 3 Hours]

[Maximum Marks : 36

- Note :-
- (1) Attempt **five** questions in all.
  - (2) Question No. **1** is compulsory.
  - (3) Attempt **four** more questions, selecting **one** from each unit.
  - (4) Draw well-labelled diagrams wherever necessary.

1. (A) Multiple choice questions :

(i) In *Riccia* the sporophyte is represented by :

- (a) Foot and seta      (b) Capsule  
(c) Foot and capsule      (d) Foot, seta and capsule

(ii) Which of the following is true about elaters of *Equisetum*?

- (a) Spindle shaped
  - (b) Possess spiral thickening bands
  - (c) Formed from epispore layer of haploid spore
  - (d) All of these
- (iii) Mucilage cavities inhabited by blue green alga are seen in thallus of :

- (a) *Anthoceros*
- (b) *Riccia*
- (c) *Marchantia*
- (d) *Riccia* and *Marchantia*

(iv) Antherozoids of *Pteris* are spirally coiled and :

- (a) Multiflagellate
- (b) Biflagellate
- (c) Uniflagellate
- (d) Aflagellate

(v) *Anthoceros* thallus shows :

- (a) Smooth walled rhizoids
- (b) Tuberculate rhizoids
- (c) Smooth walled rhizoids and scales
- (d) Tuberculate rhizoids and scales.

(vi) Intercalary meristem is seen in stem of :

- (a) *Selaginella* (b) *Pteris*  
(c) *Funaria* (d) *Equisetum*.  $6 \times 1 = 6$

(B) Fill in the blanks :

- (i) In *Pteris*, the cordate shaped, thalloid gametophyte is also known as \_\_\_\_\_.
- (ii) Resurrection plants belong to \_\_\_\_\_ genus.
- (iii) In *Marchantia* the receptacle bearing archegonia is called \_\_\_\_\_.
- (iv) The \_\_\_\_\_ movement of elaters help in spore dispersal in *Marchantia*.
- (v) The lysigenous cavities in the aerial stem of *Equisetum* are called \_\_\_\_\_ canals.
- (vi) In *Funaria* \_\_\_\_\_ help in the dispersal of spores.  $6 \times 1 = 6$

### UNIT-I

2. Write short notes on the following :

- (a) Gemma cup in *Marchantia*.  
(b) Rhizoids and scales of *Marchantia*.  $3,3$

3. Give an illustrated account of internal structure of *Riccia* thallus.

6

## UNIT-II

4. Describe briefly the structure of mature sporogonium of *Anthoceros*.

6

5. (a) Draw T.S. of *Funaria* stem.

- (b) Write short note on rhizoids in *Funaria*.

4,2

## UNIT-III

6. (a) Draw T.S. of *Rhynia* stem.

- (b) Write a brief note on sporangium of *Rhynia*.

4,2

7. (a) What is heterospory ? Discuss its significance with reference to *selaginella*.

- (b) Write briefly about Trabeculae.

4,2

## UNIT-IV

8. Give a detailed account of the structure of *Equisetum* cone. 6

9. Give an illustrated account of the structure of sporangium of *Pteris*.  
Describe the mechanism of its dehiscence and dispersal of spores.

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