

(i) Printed Pages : 3

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

1048

**BOTANY**

**Paper : A Plant Diversity-II**

**Time Allowed : Three 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) Prominent vallecular canals are characteristic feature of which part of *Equisetum* aerial stem ?

(a) Pith

(b) Cortex

(c) Endodermis

(d) Pericycle

(ii) Heterosporous condition is seen in :

(a) *Rhynia*

(b) *Equisetum*

(c) *Selaginella*

(d) *Pteris*

(iii) Branched, multicellular and obliquely septate rhizoids occur in :

(a) *Funaria*

(b) *Anthoceros*

(c) *Riccia*

(d) *Marchantia*

- (iv) In *Selaginella* stem trabeculae represents modified :
- (a) Epidermal cells (b) Cortical cells  
(c) Endodermal cells (d) Vascular tissue
- (v) In *Funaria* the number of peristome teeth in two rows are :
- (a) 16+16 (b) 08+08  
(c) 16+08 (d) absent
- (vi) In *Marchantia* sporogonium, elaters help in :
- (a) Spore dispersal (b) Nourishment  
(c) Conduction (d) Mechanical support

6×1=6

(B) Fill in the blanks :

- (i) In *Pteris* the fertile leaf bearing sporangia is called \_\_\_\_\_.
- (ii) Small tongue - shaped outgrowth present at the base on the adaxial side of young leaf of *Selaginella* is known as \_\_\_\_\_.
- (iii) Capsule in *Anthoceros* grows constantly due to the presence of \_\_\_\_\_ meristem.
- (iv) \_\_\_\_\_ is commonly called Cord Moss.
- (v) *Riccia* thallus internally shows differentiation into storage and \_\_\_\_\_ zones.
- (vi) The sporogonium of *Funaria* is differentiated into foot, \_\_\_\_\_ and capsule.

6×1=6

## UNIT-I

2. (a) Give graphic representation of life cycle in *Riccia*.  
(b) Write briefly about rhizoids in *Riccia*. 4,2
3. Give an illustrated account of mature sporogonium of *Marchantia*. 6

## UNIT-II

4. Draw L.S. of mature sporogonium of *Anthoceros*. 6
5. Write brief notes on :  
(a) Protonema in *Funaria*  
(b) Peristome teeth in *Funaria*. 3,3

## UNIT-III

6. Write short notes on any two of the following :  
(a) Rhizophores of *Selaginella*  
(b) Heterospory and its importance  
(c) Sporangiferous spike of *Selaginella*. 3,3
7. Describe the structure of sporophyte of *Rhynia*. 6

## UNIT-IV

8. (a) Describe the structure of elaters and their functions in *Equisetum*.  
(b) Give a brief account of *Equisetum* strobilus. 3,3
9. (a) Draw T. S. Petiole of *Pteris*.  
(b) Write a brief note on *Pteris* prothallus. 3,3