

(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) 2nd Semester**  
**1048**  
**BOTANY**  
**Paper : A Plant Diversity-II**

**Time : 3 Hours]**

**[Max. 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 row 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 |

6x1=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. 6x1=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













