

(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) 2nd Semester

1046

BOTANY

Paper-A : Plant Diversity - II

Time Allowed : Three Hours]

[Maximum Marks : 36

Note : (1) Attempt **five** questions in all.

(2) Question No. **I** is compulsory. Attempt **four** more questions, selecting **one** from each Unit.

(3) Draw diagrams wherever necessary.

I. (A) Fill in the blanks :

(i) Multicellular and obliquely septate rhizoids are seen in _____.

(ii) There is no foot and seta in the sporogonium of _____.

(iii) The mucilage cavities in *Anthoceros* thallus contain _____.

(iv) The new name of *Rhynia major* is _____.

(v) Vallecular canals are present in the _____ region of aerial stem of *Equisetum*.

(vi) An isophyllous species of *Selaginella* is _____.

6×1=6

(B) Multiple choice questions :

- (i) There is no columella in the capsules of :
- (a) *Riccia*
 - (b) *Funaria*
 - (c) *Anthoceros*
 - (d) All of the above.
- (ii) Appendiculate scales are present in the thallus of :
- (a) *Riccia*
 - (b) *Marchantia*
 - (c) *Funaria*
 - (d) *Anthoceros*
- (iii) 'Cord-moss' is the common name of :
- (a) *Marchantia*
 - (b) *Anthoceros*
 - (c) *Funaria*
 - (d) *Riccia*
- (iv) The spore-bearing leaf of *Pteris* is called as :
- (a) Sporophyll
 - (b) Spike
 - (c) Sporogonium
 - (d) Sporangophore.

- (v) Which type of stele is seen in the aerial stem of *Equisetum* ?
- (a) Solenostele
 - (b) Siphonostele
 - (c) Dictyostele
 - (d) Protostele.
- (vi) Which of the following is a polystelic species of *Selaginella* ?
- (a) *S. chrysocaulos*
 - (b) *S. rupestris*
 - (c) *S. selaginoides*
 - (d) *S. willdenovii* 6×1=6

UNIT-I

- II. (a) Give the diagrammatic representation of the life history of *Riccia*.
- (b) Write a note on gemma cups. 4,2
- III. (a) Describe briefly the structure of sporogonium of *Marchantia*.
- (b) Draw (only) the V.S of thallus of *Marchantia*. 4,2

UNIT-II

- IV. (a) Describe the structure of sporogonium of *Funaria*.
- (b) Write a note on protonema. 4,2
- V. Give a diagrammatic sketch of the life history of *Anthoceros*. 6

UNIT-III

- VI. (a) Describe the structure of sporophyte of *Rhynia*.
(b) Describe briefly the structure of spike of *Selaginella*. $3 \times 2 = 6$
- VII. (a) Discuss the structure and morphological nature of rhizophores of *Selaginella*.
(b) Describe briefly the gametophytes of *Selaginella*. $3 \times 2 = 6$

UNIT-IV

- VIII. (a) Describe the structure of the strobilus of *Equisetum*.
(b) Give the ecological characters of the sporophyte of *Equisetum*. 4,2
- IX. Attempt any three of the following :
- (a) Sporangia of *Pteris*.
(b) Prothallus of *Pteris*.
(c) Draw only a meristele of *Pteris*.
(d) Draw only T.S of Rhizome of *Equisetum*. $3 \times 2 = 6$