

(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) 4th Semester
(2042)**

BOTANY

**Paper—B : Structure Development & Reproduction in
Flowering Plants-II**

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :— Attempt **five** questions in all. Question No. 1 is compulsory.
Attempt **four** more questions selecting **one** from each unit.
Draw well labeled diagrams wherever necessary.

1. (a) Multiple choice questions :

(i) Hydathodes are responsible for :

- (a) Capturing insects (b) Producing wax
(c) Exudation of water (d) Secretion of mucilage

(ii) Banana can be propagated by :

- (a) Bulbs (b) Suckers
(c) Leaves (d) Corms

(iii) Pollenkit is present in the pollen wall of :

- (a) Anemophilous flowers
(b) Entomophilous flowers
(c) Zoophilous flowers
(d) Malacophilous flowers

(iv) Fruit is a :

- (a) Post fertilization product of pistil
- (b) Product of flower
- (c) Body having seeds
- (d) Product of ovary

(v) Dendrochronology is the study of :

- (a) Height of tree
- (b) Diameter of tree
- (c) Counting the number of branches
- (d) Age of tree with the help of annual ring

(vi) Phellem, Phellogen and Phelloderm are together called :

- (a) Cork
- (b) Cork Cambium
- (c) Vascular bundles
- (d) Periderm

(b) Fill in the blanks :

- (i) _____ is uniparental sexual reproduction in which embryo is formed from unfertilized egg.
- (ii) Pollination by bats is called _____.
- (iii) _____ tissues help in air circulation and also provide buoyancy to plants e.g. Hydrilla.
- (iv) The innermost hard covering of the seed is the _____.
- (v) Vascular Bundles are scattered in _____.
- (vi) Stem cuttings are sometimes treated with _____ for proper root development.

1×12=12

UNIT-I

2. (a) Differentiate between dicot stem and monocot stem.
(b) Diagrammatically explain secondary growth in dicot root. 3+3
3. (a) Briefly discuss the components of phloem.
(b) Diagrammatically explain the primary structure of monocot stem. 3+3

UNIT-II

4. Discuss the anomalous stem structure in *Boerhaavia*. 6
5. Give a detailed account of artificial methods of vegetative propagation. 6

UNIT-III

6. Discuss the characteristics of entomophilous flowers with examples. 6
7. Explain self-pollination in detail. Give its advantages and disadvantages. 6

UNIT-IV

8. Explain the development of endosperm. 6
9. Give a detailed account of factors responsible for development of fruits. 6