

(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) 4th Semester
Examination**

1047

BOTANY

**(Structure Development and Reproduction in
Flowering Plants-II)**

Paper : B

Time : 3 Hours]

[Max. Marks : 36

Note :- Attempt *five* questions in all. Question No. 1 is compulsory. Attempt *four* more questions selecting *one* from each Unit. Draw labelled diagrams where necessary.

1. (A) Fill in the blanks :

- (i) Outer young and functional part of the xylem is called

- (ii) are one internode long runners found in plants like *Pistia* to help in vegetative propagation.
- (iii) Central cap like region of inactive cells present in between the root cap and the active meristematic region of root apex is
- (iv) Tunica corpus theory was proposed by
- (v) The phenomenon where fruits are produced without fertilization is
- (vi) In condition the protoxylem lies towards centre and metaxylem towards periphery. 6×1=6

(B) Multiple choice questions :

- (i) Pollination by bats is called :
- (a) Ornithophily
 - (b) Zoophily
 - (c) Hydrophily
 - (d) Chiropterophily

- (ii) Dispersal of fruits and seeds by explosive mechanisms due to inbuilt devices is :
- (a) Anemochory (b) Hydrochory
(c) Zoochory (d) Autochory
- (iii) Cortical bundles are found in the stem of :
- (a) *Dracaena* (b) *Mirabilis*
(c) *Nyctanthes* (d) *Boerhaavia*
- (iv) Vessels are present in :
- (a) *Gnetum* (b) *Ephedra*
(c) *Welwitschia* (d) All of these
- (v) A vascular bundle where one tissue is completely surrounded by the other is :
- (a) Concentric (b) Collateral
(c) Bicollateral (d) Radial
- (vi) Pollination where pollen from anthers of one flower is transferred to the stigma of another flower on the same plant is :
- (a) Autogamy (b) Homogamy
(c) Geitonogamy (d) Xenogamy 6×1=6

Unit-I

2. Describe the structure, functions and various types of sclerenchymatous tissue. 6
3. With the help of suitable diagrams, differentiate between dicot root and monocot root. 6

Unit-II

4. Give an illustrated account of anomalous structure in the stem of *Boerhaavia*. 6
5. Write a brief note on Grafting. 6

Unit-III

6. Define Entomophily. How does pollination occur in the *Salvia* flower. 6
7. Describe various contrivances that ensure cross-pollination. 6

Unit-IV

8. What is Endosperm ? Name and discuss development of various types of endosperm. 6
9. Describe the development of embryo in a typical monocot plant. 6