

(i) Printed Pages : 3 Roll No.

(ii) Questions : 9 Sub. Code :

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B.A./B.Sc. (General) 4th Semester

(2053)

BOTANY

**Paper : B Structure Development and 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) The monocot stem is characterized by :

- (a) Lysigenous cavity
- (b) Closed vascular bundles
- (c) Both (a) and (b)
- (d) Phloem parenchyma

(ii) Vegetative propagation is the only method of reproduction in plants with :

- (a) Good seed viability
- (b) Increased seed production capacity
- (c) Both (a) and (b)
- (d) None of these

- (iii) Anemophily is promoted by _____ mechanism.
- (a) Budding (b) Barrier
(c) Gun-powder (d) Pollenkitt
- (iv) A fruit derived from ovary and accessory floral parts is called :
- (a) Simple fruit (b) False fruit
(c) Legume (d) Lomentum
- (v) V-shaped primary xylem and without lysigenous water cavities is feature of :
- (a) *Nyctanthes* (b) *Mirabilis*
(c) *Dracaena* (d) *Boerhaavia*
- (vi) Pollination by birds is known as :
- (a) Chiropterophily (b) Ornithophily
(c) Entomophily (d) Anemophily

(B) Fill in the blanks :

- (i) Root hairs occur in the zone of _____.
- (ii) Vascular bundles are scattered in _____.
- (iii) Pollenkitt is secreted in _____ flowers.
- (iv) Grafting is done between two closely related dicotyledonous plants having _____.

(v) Bisexual flowers of *Salvia* are _____.

(vi) Food laden tissue formed during the development of angiospermous seed is _____. $1 \times 12 = 12$

UNIT—I

2. Define meristematic tissue. Give a summarized account of its types based on various classifications. 6
3. Discuss the secondary growth in dicot stem with diagrams. 6

UNIT—II

4. Explain the anomalous secondary growth in *Boerhaavia*. 6
5. (a) Define vegetative propagation. Discuss the natural methods of vegetative propagation in underground stems.
(b) Explain Plant Tissue Culture. 3+3

UNIT—III

6. (a) Give a brief account of self-pollination.
(b) What are the characteristics of Ornithophilous plants ? 3+3
7. Discuss the abiotic agencies responsible for cross pollination. 6

UNIT—IV

8. Discuss the development of embryo in dicot plants. 6
9. Discuss Zoochory as one of the seed dispersal strategies. 6