

(i) Printed Pages: 4

Roll No. ....

(ii) Questions : 9

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Exam. Code : 

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**B.A./B.Sc. (General) 4<sup>th</sup> Semester**  
**1059**

**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 labelled diagrams wherever necessary.

1. (A) Multiple choice questions :—

(i) Sclerids are :

- (a) Xylem Elements
- (b) Phloem Elements
- (c) Fibres
- (d) Sclerenchymatous tissue

(ii) When scion is grafted over stock, the quality of fruit depends on :

- (a) Stock
- (b) Scion
- (c) Both of these
- (d) None of the above



(xi) The bladder-like ingrowths of thin-walled parenchymatous cells into xylem vessels are known as \_\_\_\_\_.

(xii) Dispersal of fruits and seeds by explosive mechanism due to in-built devices is known as \_\_\_\_\_.

1×12=12

### UNIT—I

2. (a) Discuss the structure, functions and types of Collenchymatous tissue.

(b) Differentiate between Dicot Stem and Monocot Stem.

3½+2½

3. (a) Draw a well labelled diagram of internal structure of Sunflower stem.

(b) Discuss the organisation of Root Apex according to Histogen Theory.

3+3

### UNIT—II

4. With the help of suitable diagram, describe the anomalous structure of *Mirabilis* stem. 6

5. Write notes on :—

(a) Grafting

(b) Layering

3+3

### UNIT—III

6. What is self-pollination ? Discuss its types as well as advantages and disadvantages. 6

7. (a) What is Hydrophily ? Discuss the characteristics of hydrophilous flowers.

(b) Discuss the mechanism of pollination in *Vallisneria*.

2½+3½

#### UNIT—IV

8. Discuss the development of Embryo in a typical dicot plant.

6

9. Write a detailed note on 'Fruit Development'.

6