

(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 Allowed : 3 Hours]**

**[Maximum Marks : 80**

*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 meri stematic 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 protoxylen lies towards centre and metaxylem towards periphery.

(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

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|----------------|----------------|
| (a) Anemochory | (b) Hydrochory |
| (c) Zoochory   | (d) Autochory  |

(iii) Cortical bundles are found in the stem of

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|----------------|---------------|
| (a) Dracaena   | (b) Mirabilis |
| (c) Nyctanthes | (d) Boerhaavi |

(iv) Vessels are present in :

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|-----------------|------------------|
| (a) Gnetum      | (b) Ephedra      |
| (c) Welwitschia | (d) All of these |

(v) A vascular bundle where one tissue is completely surrounded by the other is

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|------------------|----------------|
| (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 : , I h

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|-----------------|--------------|
| (a) Autogamy    | (b) Homogamy |
| (c) Geitonogamy | (d) Xenogamy |

## **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