

(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) 3rd Semester

(2122)

BOTANY

Paper : B (Structure Development & Reproduction in
Flowering Plants-I)

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :— Question No. 1 compulsory. Attempt ONE question from each Section. Attempt only FIVE questions in total.

1. (A) Fill in the blanks :

- (a) The biennial plants complete their life cycle in _____.
- (b) Photosynthetic roots are found in _____.
- (c) The tissues found in leaf mesophyll are _____.
- (d) Porogamy means _____.

(B) Mark the correct answer :

- (e) The milky water of green coconut is an example of :
 - (i) nucellus
 - (ii) female gametophyte
 - (iii) endosperm
 - (iv) embryo

(f) Antipodals are not found in :

- (i) *Allium* type (ii) *Oenothera* type
(iii) *Drusa* type (iv) *Pepromia* type

(g) What is true for a pollen tube :

- (i) exhibits chemotaxis (ii) callose formation
(iii) apical growth (iv) All of the above

(h) Cladodes are found in :

- (i) *Ruscus* (ii) *Opuntia*
(iii) Australian *Acacia* (iv) None of the above

8×1=8

SECTION—I

2. Describe various morphological and anatomical modifications of respiratory roots. 7
3. Discuss with the help of suitable diagrams, the various types of adventitious roots. 7

SECTION—II

4. Describe the various types of weak stems with tendrils. 7
5. Differentiate between the following :
- (a) Simple and compound leaf
- (b) Aerial and underground stem
- (c) Reticulate and Parallel venation. 2+3+2

SECTION—III

6. Describe the structure of a young anther with the help of diagrams. 7
7. Explain the development of Embryo sac in angiosperms. 7

SECTION—IV

8. Write short notes on :
- (a) Monosporic type of embryo sac
 - (b) Triple fusion
 - (c) Double fertilisation. 3+2+2
9. Describe the structure of a typical ovule. Also write about the various forms of ovule. 7