(i) **Printed Pages : 2** **Roll No. .....**

(ii) **Questions : 9** **Sub. Code :** 0 2 5 4

Exam. Code : 0 0 0 3

B.A./B.Sc. (General) 3rd Semester

(1129)

BOTANY

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

Time Allowed : Three Hours] **[Maximum Marks : 36**

Note :— Q.No. **1** is compulsory. Attempt only **ONE** question from each section. Attempt only **FIVE** questions in total.

1. (a) Permanently growing plants are known as _____.

   (b) Pneumatophores are _____ roots.

   (c) Anther, connective and filaments are parts of _____.

   (d) Pollen tube develops partitions called _____ plugs.

   (e) Secondary nucleus in *Polygonum* is :

   (i) 2n (ii) 4n

   (iii) 6n (iv) 8n

   (f) Eleven antipodals are found in :

   (i) *Oenothera* type

   (ii) *Penaea* type

   (iii) *Drusa* type

   (iv) *Adoxa* type

   of embryo sac.

(g) Pollens are released at :

(i) 2 celled stage (ii) 3-celled stage

(iii) Both (i) and (ii) (iv) None

(h) Cells formed as a result of double fertilisation are :

(i) Zygote

(ii) Primary Endosperm Cell

(iii) Both (i) and (ii)

(iv) None $8 \times 1 = 8$

SECTION—I

2. Describe with the help of suitable diagrams the Structural and Anatomical modifications of reproductive roots. 7

3. Describe the various types of Adventitious roots. 7

SECTION—II

4. Explain the various modifications of underground stems 7

5. Give the detailed anatomy of a typical monocot leaf. Discuss its advantages over dicot leaf. 7

SECTION—III

6. Give evidences to show that flower is a modified shoot. 7

7. Explain with illustrations the development of female gametophyte. 7

SECTION—IV

8. What is double fertilisation ? Give its significance. 7

9. With the help of diagrams give an account of various Tetrasporic Embryo-Sacs. 7