

(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) 3rd Semester

1125

BOTANY

Paper- B : Structure Development and Reproduction in
Flowering Plants-I

Time Allowed : Three Hours]

[Maximum Marks : 36

Note:- Attempt **five** questions in all. Q. No. **1** is compulsory. Attempt **four** more questions selecting **one** from each unit. Draw diagrams where necessary.

1. (A) Fill in the blanks:

- (i) The Plants which bear fruits once in a life time are called _____.
- (ii) The flattened green, foliaceous petiole carrying out functions of lamina is known as _____.
- (iii) Turnip resembles sugarbeet in having _____ roots.
- (iv) Exine is made up of a highly resistant fatty substance called _____.
- (v) The point of attachment of body of ovule with the funiculus is called _____.
- (vi) The mode of arrangement of mature leaves on the stem and its branches is called _____.

6×1=6

(B) Multiple Choice Questions :

- (i) The unbranched trunk with crown of leaves at the apex is called :
- (a) Caudex
 - (b) Excurrent
 - (c) Deliquiscent
 - (d) None of these
- (ii) In *Nepenthes* (Pitcher Plant), the pitcher is modified :
- (a) Leaf Stalk
 - (b) Leaf Base
 - (c) Leaf Lamina
 - (d) Leaf Apex.
- (iii) Fasciculated roots are found in :
- (a) *Dalhia*
 - (b) *Raphanus Sativus*
 - (c) *Brassica rapa*
 - (d) *Ipomea batatas*
- (iv) The normal *Polygonum* type of embryo sac is :
- (a) 8 nucleate, 8 celled
 - (b) 8 nucleate, 7 celled
 - (c) 7 nucleate, 7 celled
 - (d) 7 nucleate, 8 celled

(v) If the root cell of a rose plant contains $4x$ number of chromosomes, its endosperm will have :

- (a) $4x$
- (b) $6x$
- (c) $8x$
- (d) $12x$

(vi) Opposite decussate leaves are found in :

- (a) *Calotropis*
- (b) *Nerium*
- (c) *Alstonia*
- (d) *Quisqualis*

$$6 \times 1 = 6$$

UNIT-I

2. With the help of diagram, explain the anatomical modification in roots for respiration. 6
3. Explain the diversity in plants on the basis of their longevity. 6

UNIT-II

4. Give an account of internal structure of a dicot leaf with the help of a suitable diagram. 6
5. Write brief notes on any **two** of the following :
- (a) Stem Tendril
 - (b) Phylloclade
 - (c) Stem thorn

$$3 + 3 = 6$$

UNIT-III

6. Discuss the statement-Flower is a modified shoot. 6
7. Discuss the development of male gametophyte in angiosperms. 6

UNIT-IV

8. Discuss the different types of ovules in angiosperms. 6
9. Describe double fertilization and its significance in an angiospermic plant. 6