

6. Attempt the following :

- (m) Describe the objectives of Bee pollination. 4
 (n) Describe the method of self pollination in bee plants. 4
 (o) Describe the role of pollinating agents. 4

OR

- (p) Describe the method of cross pollination in bee plants. 4
 (q) Describe the disadvantages of self pollination. 4
 (r) Describe the effect of topographical factors on cross pollination. 4

7. Explain in brief :

- (s) Chemical composition of Honey. 4
 (t) Effects of insecticide on honey bee. 4
 (u) Methods of honey bees placement in farms and orchards. 4

OR

- (v) Preventive measures for the insecticides effects on honey bees. 4
 (w) Advantages of honey bee colony migration. 4
 (x) Management practices for honey bee colonies during pollination. 4

AQ—670

B.Sc. (Part-I) Semester-II Examination
2S : APICULTURE
(Bee Botany, Pollination & Mellitto Palynology)

Time—Three Hours]

[Maximum Marks—80

N.B. :— (1) All questions carry equal marks.

(2) Question 2-7 carry equal marks.

1. (A) Fill in the blanks :

- (i) The plant kingdom is divided into two parts phanerogams and _____. $\frac{1}{2}$
 (ii) _____ is an ornamental bee plants. $\frac{1}{2}$
 (iii) Pollination by _____ is known as anemophilous pollination. $\frac{1}{2}$
 (iv) The plant _____ shows self pollination. $\frac{1}{2}$

(B) Rewrite the following statement by choosing the correct alternative :

- (a) The transfer of pollengrain is known as _____.
 (i) Embryogenesis
 (ii) Phenology
 (iii) Pollination. $\frac{1}{2}$

(b) _____ is one of the most important and fundamental branch of Palynology :

- (i) Pollen Morphology
- (ii) Embryology
- (iii) Taxonomy. ½

(c) _____ is one of the applied branch of Palynology :

- (i) Melittopalynology
- (ii) Histology
- (iii) Morphology. ½

(d) _____ plays an important role to prepare the Floral calender of Bee Flora :

- (i) Phenology
- (ii) Morphology
- (iii) Anatomy. ½

(C) Answer the following questions in **one** sentence :

- (i) Define Fertilization. 1
- (ii) What are bee plants ? 1
- (iii) What are pollinating agents ? 1
- (iv) Define self pollination. 1

2. Describe the development of embryo in dicotyledonous bee plants. 12

OR

Describe the floral structure with neat labelled diagram.

12

3. Describe the roadside bee plants with reference to the tree Flora. 12

OR

Describe the agricultural bee Flora of the local area.

12

4. Explain in brief :

- (a) Preparation of local floral calender. 4
- (b) Floral gaps and its disadvantages. 4
- (c) Any four bee plants of local area. 4

OR

- (d) Advantages of floral calender. 4
- (e) Toxic of bee plants. 4
- (f) Flowering sequence of bee plants. 4

5. Describe in brief :

- (g) Methods for preparation of pollen slide. 4
- (h) Advantages of cross pollination. 4
- (i) Any two types of pollination. 4

OR

- (j) Types of Pollen 4
- (k) Advantages of self pollination. 4
- (l) Shapes of pollengrains. 4