AU–78

B.Sc. (Part–I) Semester–II Examination

APICULTURE

(Bee Botany, Pollination and Mellitopalynology)

Time : Three Hours] [Maximum Marks : 80

N.B. :– **All** questions are compulsory and questions **2** to **7** carries equal marks.

1. (A) Fill in the blanks :
   (i) Flowering plants belongs to sub Kingdom _____ . ½
   (ii) Pollen contains two _____ sperm. ½
   (iii) Pollen basket present on _____ leg of bee. ½
   (iv) In insect _____ are important. ½

   (B) Choose correct option :
   (i) In Pollen wax layer present on : ½
      (a) Inlihe
      (b) Extine
      (c) Tube.
   (ii) Hydrophily done by : ½
      (a) Water
      (b) Insect
      (c) Bird.
   (iii) Pollination in same flower is known as : ½
      (a) Self
      (b) Geitonogamy
      (c) Autogamy.
   (iv) Which is bee plant : ½
      (a) Rose
      (b) Sunflower
      (c) Both.

   (C) Answer in one sentence :
   (i) What is bee botany ? 1
   (ii) What is Xenogamy ? 1
   (iii) What is entomophily ? 1
   (iv) What is nectar ? 1

2. (a) Explain structure of flower. 4
   (b) Give composition of nectar. 4
   (c) Give morphology of flowering plant. 4

OR

   (d) Explain classification of Kingdom plantae. 4
   (e) Describe fertilization and development of embryo. 4
   (f) Explain general classification of important bee plants. 4

3. Discuss cultivated crop, horticultural and wild bee flower plants with their flowering period. 12

OR

   Give the account o functional classification of bee flora and give names of each. 12

4. (g) Explain flowering gap. 4
   (h) Explain dearth period and honey flow. 4
   (i) Describe poisonous honey 4

OR

   (j) Explain formulation of local floral calender. 4
   (k) Explain flowering sequence. 4
   (l) Describe wild bee flora of Melghat forest. 4

5. (m) Explain method of preparation of Pollen slide. 4
   (n) Describe morphology of Pollen 4
   (o) Describe honey bee as a important pollinator. 4

OR

   (p) Define mellitopalynology and write note on pollen basket. 4
   (q) Describe pollen types. 4
   (r) What is pollen load ? Where it can be carries and stored. 4

6. Define pollination and discuss type of pollination followed by suitable examples. 12

OR

   Discuss pollinating agets. 12

7. (s) Explain effect of honey bee on honey bee. 4
   (t) Explain concept of migratory bee keeping. 4
   (u) Explain method of conversion of nectar in to honey. 4

OR

   (v) Give composition of honey. 4
   (w) Explain *A.dorsata* as wild bee. 4
   (x) Explain placement of bee colonies in farm. 4