

AP-463

- (d) How humidity can be maintained in bee hive by bees ? 4
- (e) Explain term robbing. 4
- (f) Explain round and wag-tail dance by bees. 4
6. Discuss various brood diseases in bees with their causative agents. 12

OR

- Give measures to control foul brood diseases. 12
7. (a) How will you control mites ? 4
- (b) Explain management of wasps in apiary. 4
- (c) Explain effects of wax moth on colony. 4
- OR
- (d) Explain method to control wax moth. 4
- (e) Explain bird enemies and how they can be controlled. 4
- (f) Explain spiders and mammals as bee eaters. 4

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

APICULTURE

(Entomology & Bee Pathology)

Time—Three Hours]

[Maximum Marks—80

Note :— All questions are compulsory and questions 2 to 7 carry equal marks.

1. (A) Fill in the blanks :

- (a) A _____ species has open nesting behaviour. $\frac{1}{2}$
- (b) Only _____ secretes wax in the colony. $\frac{1}{2}$
- (c) _____ is a sense organ of honey bee. $\frac{1}{2}$
- (d) _____ bees do not contain sting apparatus. $\frac{1}{2}$

(B) Choose correct option :

- (a) American foul brood diseases due to :
- (i) bacteria
- (ii) virus
- (iii) fungus. $\frac{1}{2}$

(b) Pollen bags are located on :

- (i) drones
- (ii) workers
- (iii) queen. ½

(c) The nesting of *A. Cerena* is :

- (i) multicombed
- (ii) single comb
- (iii) none of these. ½

(d) The nesting of trigona species is :

- (i) open
- (ii) dark
- (iii) medium. ½

(C) Answer in **ONE** sentence each :

- (a) Give the names of poisonous plant to bees. 1
- (b) What is long form of *A.FB* ? 1
- (c) What is the function of drone ? 1
- (d) What is the aim of bee dance ? 1

- 2. (a) Explain how man is hunter of honey bee ? 4
- (b) Give systematic classification of *Apis*. 4
- (c) Explain solitary bees, followed by its example. 4

OR

(d) Describe social bees, followed by its example. 4

(e) Explain various uses of bees to human being. 4

(f) Explain importance and relation of bees to human culture. 4

3. (a) Give geographical distribution of *Apis Cerena*. 4

(b) Explain division of labour in bee colony. 4

(c) Give any four characteristics of *Apis Florea*. 4

OR

(d) What is the importance of castes in the colony ? 4

(e) Explain importance of scent glands. 4

(f) Give geographical distribution of *A. Dorsata*. 4

4. With the help of diagram discuss digestive and circulatory system in bees. 12

OR

With the help of diagram discuss nervous and respiratory system in honey bees. 12

5. (a) How honey bees maintain temperature in hive ? 4

(b) Explain role of ventilation in bee hive. 4

(c) What do you understand by guarding ? 4

OR