

B.Sc. (Part-II) Semester-IV Examination
APICULTURE
(Bee Chemistry)

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 :

- (i) Bees convert _____ into honey. ½
- (ii) Bee collects pollen from _____. ½
- (iii) Honey from mix flora is _____ honey. ½
- (iv) Resin collected by mellifera bee is _____. ½

(B) Choose correct option :

- (i) Sting apparatus is located on this part of honey bee : ½
 - (a) abdomen
 - (b) head
 - (c) mouth
 - (d) leg
- (ii) Honey quality standards are fixed by : ½
 - (a) Agmark
 - (b) Market
 - (c) KVIB
 - (d) Bee keep
- (iii) _____ is raw material for honey. ½
 - (a) Pollen
 - (b) Nectar
 - (c) Water
 - (d) Propolis
- (iv) Sweet juice secreted by aphides is : ½
 - (a) honey
 - (b) honey dew
 - (c) nectar
 - (d) resin

(C) Answer in one sentence each :

- (i) Define unifloral honey. 1
- (ii) What is propolis ? 1
- (iii) What is BII ? 1
- (iv) Define nectar. 1

- 2. (a) Explain sugars in honey as one of the components. 4
- (b) Give average chemical composition of nectar. 4
- (c) Explain bee pollen as a product of honey bees. 4

OR

- (d) Explain ripened honey. 4
- (e) Describe ripened honey. 4
- (f) Explain components of honey other than sugars. 4

3. (g) Describe antibacterial properties of honey. 4
(h) Explain how apiary honey is more hygienic than squeezed honey. 4
(i) Explain honey dew. 4

OR

- (j) Describe antioxidant properties of honey 4
(k) Describe multifloral honey 4
(l) Explain types of honey. 4
4. Discuss fermentation and hygroscopicity as properties of honey. 12

OR

Discuss quality standard of honey; give its specifications. Describe effect of temperature on honey quality. 12

5. (m) Explain need to process honey. 4
(n) Explain any two value added products of honey. 4
(o) Give average composition of wax. 4

OR

- (p) Give advantages of processing of honey. 4
(q) Give applications of bees wax. 4
(r) Explain bleaching of wax. 4
6. Discuss collection composition and uses of bee pollen. 12

OR

Discuss composition and applications of bee venom. Give account of extraction of bees venom. 12

7. (s) Explain source and use of royal jelly in bee colony. 4
(t) Describe uses of propolis in bee colony. 4
(u) Give average composition of royal jelly. 4

OR

- (v) Explain basic source of propolis and give its applications. 4
(w) Describe uses of royal jelly. 4
(x) Explain royal jelly and as propolis are bee product. 4