

Roll No. ....

Total No. of Questions : 9]  
(2033)

[Total No. of Printed Pages : 4

**UG (CBCS) IInd Year Annual Examination**

**3118**

**B.Sc. ZOOLOGY**

(Apiculture)

(SEC-II)

Paper : ZOOL 204 TH

**Time : 3 Hours]**

**[Maximum Marks : 70**

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*Note* :- Attempt *five* questions in all, selecting *one* question each from Sections-B, C, D and E. Question No. 1 of Section-A is compulsory. Attempt all parts of a question together.

**Section-A**

**(Compulsory Question)**

1. (A). Do as directed :

- (i) Honey bee has ..... type of mouth parts.

**CA-318**

( 1 )

Turn Over

- (ii) Plants that yield pollen and nectar are called .....
- (iii) Father of modern Apiculture is .....
- (iv) Among the following species which one is also called red dwarf honey bee :
- (a) *Apis mellifera*
  - (b) *Apis florea*
  - (c) *Apis dorsata*
  - (d) *Apis indica*
- (v) The technical name for basket shaped hive usually made up of straw is .....
- (vi) Chronic bee paralysis in bees is caused by a fungus .....
- (vii) What is the Zoological name of the organism causing Nosemosis in honebees.
- (viii) Pollens are mainly composed of proteins.  
(True/False)
- (ix) Which of the following is not a bee product :
- (a) Honey
  - (b) Bee Wax
  - (c) Bee Poison
  - (d) Nectar

1×10=10

(B) Explain the following :

(i) Castes of honeybee

(ii) Royal jelly

2×2=4

### Section-B

2. (a) Describe the life-cycle of honeybee. Which species is not suitable for Apiculture ?

(b) What is Supersedure ? How long can a hive live without a queen ?

10+4

3. (a) Give a detailed account of bee keeping equipment used in the Apiculture.

(b) What criteria is normally used for the selection of bee species for Apiculture ?

10+4

### Section-C

4. (a) Name *two* common bacterial diseases of honey bee. Describe the causative organisms, transmission, symptoms and control measures of the *two*.

(b) Explain the cause, mode of transmission and symptoms of Nosema disease.

8+6

5. (a) Explain in detail the indigenous and modern methods of honey extraction.

(b) Give a brief account of coleopteran parasite of honey bee.

10+4

### Section-D

6. (a) Give a comprehensive account medicinal importance of honey. 8+6
- (b) Which disease is caused by the fungus *Aspergillus* in honey bee. Discuss symptoms and management of the disease. 8+6
7. (a) Give a detailed account of the pathogenicity of parasitic mite *Varroa destructor*, emphasising on the chemical control of the disease. 8+6
- (b) How bee keeping can be useful in enhancing the crop yield through pollination. 8+6

### Section-E

8. (a) Explain in detailed all the factors affecting the activity of honey bee. 8+6
- (b) Give a brief account of bee forage and add a note on honey extractor. 8+6
9. (a) How can bee keeping be helpful in providing employment ? Discuss its role in raising the economic status of the people. 10+4
- (b) Write a short note on Bee Swarming. 10+4