



**2022/TDC/ODD/SEM/
ZOOSEC-301T/032**

TDC (CBCS) Odd Semester Exam., 2022

ZOOLOGY

(3rd Semester)

Course No. : ZOOSEC-301T

(Apiculture)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any three questions from the following : 1×3=3

- (a) What is apiculture?
- (b) "Bees are polymorphic." Why?
- (c) Mention the scientific names of two common honeybee species of India.
- (d) Write the names of different body parts of a honeybee.



(2)

2. Answer any *one* question from the following : 2
- (a) Classify honeybee up to order with examples.
 - (b) Mention the mouthparts of honeybee.

3. Answer any *one* question from the following : 5
- (a) Write about the social organization of a honeybee colony.
 - (b) Discuss the structure of honeybee with a neat diagram.

UNIT—II

4. Answer any *three* questions from the following : 1×3=3
- (a) What are the different types of beehives used in bee culture?
 - (b) Mention the bee-keeping equipments.
 - (c) Name the bee species best for apiculture.
 - (d) Define bee pasturage.
5. Answer any *one* question from the following : 2
- (a) Write a note on movable frame hive.
 - (b) Write the composition of honey.

(3)

6. Answer any *one* question from the following : 5

- (a) Describe the Langstroth-type of beehive.
- (b) How is honey extracted from a honeybee colony?

UNIT—III

7. Answer any *three* questions from the following : 1×3=3
- (a) What are the predators of honeybee?
 - (b) Mention two viral diseases of honeybee.
 - (c) Name two bacterial diseases of honeybee.
 - (d) Mention the enemies of honeybee.
8. Answer any *one* question from the following : 2
- (a) Why are birds important enemies of honeybee?
 - (b) Write a note on Nosema disease of honeybee.



(4)

9. Answer any one question from the following : 5

- (a) Discuss the causes and management of common bacterial diseases of honeybee.
- (b) Write about the predators of honeybee and their management.

UNIT—IV

10. Answer any three questions from the following : 1×3=3

- (a) Write about the products of apiculture industry.
- (b) What do you mean by bees wax?
- (c) Write about bee venom.
- (d) What is pollen?

11. Answer any one question from the following : 2

- (a) What do you mean by propolis?
- (b) What is royal jelly?

(5)

12. Answer any one question from the following : 5

- (a) Write about the method of storage of honey. Add a note on the important uses of honey.
- (b) Discuss the process of collection of bees-wax.

UNIT—V

13. Answer any three questions from the following : 1×3=3

- (a) Define pollination.
- (b) Write about cross-pollination.
- (c) Define horticulture.
- (d) Which bee species is a good pollinator?

14. Answer any one question from the following : 2

- (a) State the importance of honeybees in cross-pollination.
- (b) Mention the pollinating agents.



15. Answer any *one* question from the following.: 5

(a) Describe the recent efforts employed in bee-keeping industry.

(b) Mention the modern methods of bee-keeping used for cross-pollination in horticulture.

—V—