

**2020/TDC (CBCS)/ODD/SEM/
ZOOSEC-301T/032**

(2)

**TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021**

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*

SECTION—A

Answer any *fifteen* of the following as directed :
1×15=15

1. The movable frame hive for beekeeping was fabricated by ____.

(Fill in the blank)

2. In which year beekeeping was started at Pusa?

10-21/73

(Turn Over)

- 3.** To which order of insects the bee belongs?
- 4.** Name the three families of honey producing social bees.
- 5.** Name the family of stingless bees.
- 6.** What are the castes in a bee colony?
- 7.** What is royal jelly?
- 8.** State the composition of royal jelly.
- 9.** What is bee propolis?
- 10.** What is a queen excluder?
- 11.** Name the bee species ideal for apiculture.
- 12.** What is bee pasturage?
- 13.** Name the Indian variety of commercial bee hive.
- 14.** Nosema disease is caused by a protozoan called ____.

(Fill in the blank)

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(Continued)

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15. The causative organism of American broodfoul is ____.
(Fill in the blank)
16. What do you understand by 'Isle of Wight'?
17. Name the avian enemies of honeybee.
18. What is the treatment for Acarine disease?
19. Write the composition of honey.
20. What is granulation of honey?
21. What is Ghedda wax?
22. What is Tanganyika method of bee wax extraction?
23. Mention the uses of bee wax.
24. What is the specific gravity of pure honey?
25. What is a top-bar hive?
26. Which bees are the best pollinators?
27. Name the nut which is entirely dependent on honeybee for pollination.

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28. What is Entomophily?
29. What is NBHM?
30. What is the fund allocated by Indian Govt. for beekeeping under Atma Nirbhar Abhiyan?

SECTION—B

Answer any *five* of the following questions : $2 \times 5 = 10$

31. What is bee dance?
32. Write a note on social organization of bee colony.
33. What are the parts of a modern bee hive?
34. Name the beekeeping equipment used.
35. What are the different types of broodfoul disease?
36. Mention the preventive measures used to keep away ants from bee colony.
37. Mention the uses of honey other than as food.

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38. What are the industrial uses of bee wax?
39. What do you understand by collecting a swarm for beekeeping?
40. What is a 'beeyard'?

SECTION—C

Answer *any five* questions

41. What is nuptial flight? Who takes part in it? 3+2=5
42. What are the responsibilities discharged by worker bees in their lifetime? 5
43. Differentiate between the indigenous and modern method of extracting honey. 5
44. Write the principles for selecting bee species for apiculture. 5
45. State the symptoms and causative organisms of Amoebic and Acarine diseases. $2\frac{1}{2}+2\frac{1}{2}=5$
46. What are the products obtained from apiculture? State the use of apitoxin. 3+2=5

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47. What is bee K-wing disease? What is the causative organism? 3+2=5
48. What are the commercial uses of propolis? 5
49. What are the aims of National Beekeeping and Honey Mission? 5
50. Write about the importance of honeybee in horticulture. 5
