(6 pages)

Reg. No. :

Code No.: 30515 E Sub. Code: CNZO 31

U.G. (CBCS) DEGREE EXAMINATION, NOVEMBER 2022.

Third Semester

Zoology - Non major Elective

BEE KEEPING

(For those who joined in July 2021 onwards)

Time: Three hours Maximum: 75 marks

PART A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer:

- 1. Amongst honey bees, the workers are
 - (a) Males
 - (b) Females
 - (c) Both male and female
 - (d) Hermaphrodite

- 2. Apis dorsata refers to
 - (a) Little bee
- (b) Indian bee
- (c) European bee
- (d) Rock bee
- 3. Honey bee pollen baskets are found in
 - (a) Hind legs
- (b) Forelegs
- (c) Abdomen
- (d) None of the above
- 4. Plants get benefited from bees through
 - (a) Seed dispersal
- (b) Pollination
- (c) Nutrient cycling
- (d) All of the above
- The natural method of colony multiplication in honeybee is
 - (a) Swarming
- (b) Supersedure
- (c) Abounding
- (d) None of the above
- 6. This type of mouth parts is present in honey bee
 - (a) Siphoning
 - (b) Sponging
 - (c) Piercing
 - (d) Chewing and lapping

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- 7. The structure of honeycomb is
 - (a) Triagonal prismatic wax cell
 - (b) Pentagonal prismatic wax cell
 - (c) Octagonal prismatic wax cell
 - (d) Hexagonal prismatic wax cell
- 8. Frameless beehive is called as
 - (a) Wane
- (b) Top bar
- (c) Langstroth
- (d) All of the above
- 9. The pH of honey is
 - (a) Acidic
 - (b) Alkaline
 - (c) Neutral
 - (d) Turns basic after a few days
- 10. Bee wax consists of
 - (a) Fatty acid
- (b) Lactic acid
- (c) Oxalic acid
- (d) Formic acid

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PART B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain briefly about the functional role of Queen bee.

Or

- (b) What are the difference between Rock bee and Indian bee?
- 12. (a) Write short note on honeybee's daily routine.

Or

- (b) Explain about the nutritional characters of pollen and honey.
- 13. (a) How are the newly captured bee colonies maintained?

Or

- (b) Give a brief account on supersedure.
- 14. (a) Explain the difference between primitive and modern beehives.

Or

(b) Write short note on waggle dance of honeybee.

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[P.T.O]

- 15. (a) What are the physical properties of honey?
 Or
 - (b) What is Royal jelly? And explain its role.

PART C — $(5 \times 8 = 40 \text{ marks})$

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Elaborate the life history of Apis indica.

Or

- (b) Explain about the identification of queen, drones and workers in beehive and write about their role.
- 17. (a) Give a detail account of migratory bee keeping.

Or

- (b) Discuss about apiary positioning with respect to space and direction of sun to facilitate foraging of honeybees.
- 18. (a) Explain in detail about the construction and architecture of honeycomb.

Or

(b) Give a detailed account on the honeybee diseases and control measures.

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19. (a) Define Newton bee hive and its architecture with neat diagram.

Or

- (b) What are the advantages and disadvantages of primitive and modern beehives?
- 20. (a) Give an elaborate account on different products of apiary along with their uses.

Or

(b) Explain about the medicinal aspects of honeybee products.

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