



UNIVERSITY OF NORTH BENGAL
B.Sc. Programme 5th Semester Examination, 2020

SEC2-(P1)-ZOOLOGY

APICULTURE

Full Marks: 40

ASSIGNMENT

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.*

**The question paper contains Group-A and Group-B.
The candidates are required to answer any *one* from *two* Groups.
Candidates should mention it clearly on the Answer Book.**

GROUP-A

APICULTURE

Answer any *four* questions from the following

10×4 = 40

1. Compare four different species of honey bee used for apiculture.
2. Describe modern method of apiculture using Langstroth hive.
3. What do you mean by bee pasturage or bee flora? Explain the indigenous method of rearing of honey bee with its limitations.
4. What is swarming? Describe the method of communication by bee language among the foragers with suitable diagram.
5. Describe different types of accessory equipment's used for modern method of apiculture.
6. Write the name, causative agent symptoms and prevention method of two fungal and two bacterial diseases of honey bee brood.
7. Describe the composition and use of honey and bee wax.
8. What is pollen basket? Write in details the duties and responsibilities of the worker bees to maintain a eusocial colonial life in a honey comb.

GROUP-B

AQUARIUM FISH KEEPING

Answer any *four* questions from the following

10×4 = 40

1. Describe the common ornamental fish diseases and their control measures.
2. Describe the preparation and composition of formulated fish feeds.
3. Give an account of commercially important endemic species of aquarium fishes.
4. Describe the characters and sexual dimorphism of any three marine aquarium fishes.
5. Describe the measures to be taken to improve aquarium fish industry in India.
6. Describe the different units involved in ornamental fish trade.
7. Give a brief account for setting up of the aquarium and specially describe the importance of aeration and filtration in maintaining the aquarium.
8. Elaborate the steps necessary for conditioning of aquarium fish for packaging before transportation.

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