



# DEPARTMENT OF ZOOLOGY

Amar Singh College, Srinagar

Cluster University Srinagar



## SKILL ENHANCEMENT COURSE (ZOOLOGY)

SEMESTER-I (NEP-2020)

**Credits: 2**

**Course Title: Apiculture I**

**Course Code:**

**Session-2022**

**Marks: 30**

**Contact Hours: 30**

### Learning objectives:

This course is designed to acquaint the student with

1. The broad field of beekeeping.
2. Honeybee biology and behaviour,

### Learning outcomes:

After successful completion of the course the students will be able to:

1. Explain the basic concepts of apiculture
2. Explain systematics of honey bee.
3. Explain colony organization, polymorphism in honey bee.
4. Can identify different species of honey bee.
5. Explain the honey bee behaviour.

### Unit I- Beekeeping

1. Introduction and history of beekeeping.
2. Classification and origin of honey bee.
3. Honey bee species (brief description of *Apis florea*, *Apis dorsata*, *Apis indica*, *Apis mellifera*).
4. Colony organization (morphological features and functions of queen, worker bees and drones).

### Unit II- Bee Bionomics

1. Life History of honey Bee
2. Bee language ( Bee dance –round and tail wagging dance)
3. Swarming and supersedure.
4. Emergency queen, absconding and migration

### Suggested Reading:

1. Beekeeping in India Singh S., ICAR, New Delhi.
2. Apiculture in India-Ataur Rahman.
3. Perspective in Indian Apiculture-Mishra RC.
4. Textbook of Apiculture (Beekeeping)-Dr D K Belsare, Dr Rakesh Kumar Singh, Dr Mrs Shashikala D Belsare and Ravi H. Deshmuk.
5. The Complete Book on Beekeeping and Honey Processing (2nd Revised Edition)-NPCS Board of Consultants & Engineers.
6. Apiculture- Dr J K Gupta.

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