GOVERNMENT DEGREE COLLEGE BARAMULLA Department of Zoology

SEMESTER - 1st

SKILL ENHANCEMENT COURSE (SEC)

Subject: Zoology

Title: APICULTURE Course code: BZO22S102

(CREDITS (4): THEORY – 02, PRACTICALS -02)

Contact hours: 32 (T) + 32 (L)

Course Objectives: To impart skill regarding Apiculture and to promote it as a skill to harness the benefits of apiculture as cottage industry.

Learning outcomes:

After thoroughly understanding the course the student should be able to:

- learn basic Apiculture skills and demonstration and identification of different species of honey bees;
- Role of honey bees in the Agriculture and allied fields; and
- > Importance of Honey bees in rural Economy.

THEORY (2 CREDITS)

Unit I: Bee Keeping I

(16 Hours)

- 1.1 Introduction and Historical background of Apiculture
- 1.2 Social organization in honey bees
- 1.3 Life cycle of honey bees
- 1.4 Role of Honey bee in Horticulture and Agriculture as potential pollinator (special reference to Kashmir)

Unit II: Bee Keeping II

(16 Hours)

- 2.1 Methods of bee keeping, modern Bee hives.
- 2.2 Bee keeping products: honey and bee wax
- 2.3 Enemies of honey bees
- 2.4 Apiculture as a potential Cottage industry.

PRACTICAL (2 CREDITS)

(32 Hours)

- 1. Morphological study of Honey Bee
- 2. Specimen study of different castes of honey bee
- 3. Collection and identification of indigenous honey bee species
- 4. Life cycle study of honey bees

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- 5. Temporary mount preparation of mouth parts of honey bees
- 6. Temporary mount preparation of sting apparatus of honey bees
- 7. Visit to an apiary.

SUGGESTED READINGS

- 1. Prost, P. J. (1962). Apiculture. Oxford and IBH, New Delhi.
- 2. Bisht D.S., Apiculture, ICAR Publication.
- 3. Singh S., Beekeeping in India, Indian council of Agricultural Research, New Delhi