# DEPARTMENT OF ZOOLOGY VALUE ADDED COURSE AQUARIUM KEEPING

Hour: 30

#### **Course outcome:**

After completion of this course, students will be able

- 1. Students learn the biology & Dispersion of ornamental fishes and is able to maintain Home aquaria.
- 2. He develops Entrepreneurial skill and thereby becomes fit to earn their livelihood.
- 3. To inculcate the importance and methodology of ornamental fish farming and the various techniques of handling up to marketing.
- 4. To impart the knowledge on construction of glass aquarium and its maintenance.

Unit-I 6 hrs

The potential scope of aquarium keeping- Characteristics of ornamental fishes- Types of aquaria- Aquarium maintenance. Setting of aquarium of different sizes.

Unit- II 6 hrs

Aquarium fishes: Gold fish- Angel fish- Molly- Tiger Barb- Zebra fish- Guppy-Common aquarium plants and their multiplication. Aerators and filters.

Unit- III 6 hrs

Different types of ornamental freshwater species, their breeding habits and life history: Rearing of larvae and adults.

Unit- IV 6 hrs

Fish feeds – Supplementary feed– Formulation- Live feeds. Diagnosis of common Aquarium fish diseases- Protozoan, bacterial & viral and treatment.

Unit- V 6 hrs

Packaging and transport of aquarium species – Export units – Marketing strategy-Regulations for export of fish.

# Field visit to the local aquaria

# **Books for References:**

- 1. Jhingran, V. G. and Sehgel, K. H. 1994. Coldwater fisheries of India, Inland Fish. Soc., India, pp.239.
- 2. Sehgel, K. H., Sports fisheries of India, ICAR Publication, New Delhi.

# VALUE ADDED COURSE BIRDS KEEPING

Hours: 30

#### **Course outcome:**

After completion of this course, students will be able

- 1. Student understand the basic behavioral characteristics of birds commonly kept as pets.
- 2. Students learn the Basic husbandry principles, nutrition, and biosecurity for pet birds.
- 3. Students get familiar with basic economics and develops entrepreneurial skill
- 4. To impart basic knowledge in bird keeping, bird biology, breeding disease management.
- 5. To know the feasibility for bird keeping in commercial scale.

#### Unit I:

Introduction to Bird Keeping - The potential scope of ornamental bird Industry as a Cottage Industry, Exotic and Endemic species of Ornamental birds.

#### Unit II:

Biology of ornamental birds - Common characters and sexual dimorphism Parrot, Pigeon, Love birds, Sparrow.

# **Unit III**:

Food and feeding of ornamental birds, Preparation and composition of formulated bird feeds. – Bird handling, packing in cages - and Breeding methods.

# **Unit IV:**

Introduction to basic veterinary procedures used when handling and caring for birds in a clinical setting. Common diseases – precautions and control measures.

# Unit V:

Economics of bird keeping – Mass Culture - Marketing – Sales.

# Field visit to Pet shops

# **Books for References:**

 Gary A. Gallerstein, Julie Rach, Julie Rach Mancini, The Complete Pet Bird Owner's Handbook, Avian Publications, 2003 - Birds - 441 pages, ISBN.1895270251.