## **Diploma Course**

### In

# **Ornamental Fish Farming**

### **CDZO01- Diploma Course in Ornamental Fish Farming**

Sr. No.	Heading	Particulars
1.	Title of the Course	Diploma Course in Ornamental Fish Farming
2.	Eligibility for Admission	Candidate who passed 10+2 examination with at least 55% marks in aggregate in Science
3.	Duration	Six month
4.	Mode of Assessment:	End Theory Assessment –100% Maximum Marks: 50
5.	Passing Marks	The candidate must obtain 35% of the total marks in theory and practical separately to pass the course.
6.	To be implemented from the Academic Year	From Academic Year 2019-2020

Signature:

#### **CDZO01- Diploma Course In Ornamental Fish Farming**

#### INTRODUCTION

The Diploma in ornamental Fish Farming is intended to create interest in breeding and rearing of aquatic organisms and plants in controlled conditions. Aqua Farming/Ornamental Fish Farming provide alternative livelihood opportunities for the socio-economic upliftment of the society. The entrepneurship possibilities through ornamental fish farming is getting popular in the present scenario. Hence Ornamental Fish Farming Courses will create awareness and promote green aquaculture involving environmental-friendly practices.

#### **Objectives of the Certificate Course:**

- 1. To provide hands on training on setting up of aquaria and maintenance
- 2. To impart hands on training on culture, breeding of commercially important ornamental fishes
- 3. To equip students for self employment in the field of ornamental fish farming

#### SYLLABUS OF THE DIPLOMA COURSE

Unit	Topic	L/Week
Ι	Introduction to Aquaculture and Ornamental Fishes Trading	
	Introduction to Ornamental fishes	
II	Engineering Aspect and construction of aquarium(I)	02
	Fish Breeding and rearing in Live Bearers	
III	Fish Breeding and rearing in Egg layers	
	Ornamental fish farming-Management Aspects	
IV	Introduction to Aquarium plants andits propagation techniques	
	Engineering Aspect and construction of aquarium(II)	
	Practical	01
	Total	03

#### Theory Syllabus of Diploma Course

#### **UNIT-I** Introduction to Ornamental Fish Farming (3 hours)

Basics of aquaculture - Definition and Scope. History of Aquaculture: Present Global and National Scenario. Ornamental Fisheries - New Dimensions in Aquaculture Entrepreneurship

#### **UNIT II** Construction of Aquarium (12 hours)

Construction, settings and maintenance of aquarium, Construction of ornamental fish unit, Engineering aspect in Ornamental Fish Farming. Aquarium and Aquarium Accessories. Morphology, Multiplication of Aquarium Plants – Different Methods, Management of Ornamental Aquatic Plants.

#### **Unit III** Breeding and Rearing of Ornamental Fishes (12)

Basic knowledge on profile of ornamental fishes. Breeding of ornamental fish with reference to live bearer species. Rearing of Live Bearers. Breeding of ornamental fish with reference to selected egg layer species. Nursery Management of Egg Layers.

#### **UNIT IV** Ornamental fish farming-Management Aspects (8 hours)

Ornamental Fish-Diseases and their Management. Live Food Culture for Tropical Ornamental Fish. Feeding for Breeding and Maintenance of Ornamental Fish. Health Management in Ornamental Fish Farming.

#### **PRACTICALS (15 hours)**

- 1. Identify classify and describe an aquarium fishes (any five).
- 2. Study of breeding in live bearer
- 3. Identify and describe the aquarium accessories with their use and maintains.
- 5. Identify and describe food and its Types
- 6. Identify and describe an aquarium plants (any five).
- 8. Setting of aquarium.
- 9. Maintenance of an aquarium.
- 10. Cultivation of some common live food
- 11. Aquarium fish diseases

#### **Books and References Recommended**

- 1. Hawlins, A.D. (Ed). Aquarium Systems. Academic Press.
- 2. Hunnam, P. Ward Lock, Living Aquarium.
- 3. Ratjak, K. and Zukal, R., Aquarium Fishes and Plants.
- 4. Dick Mills, 1987. Illustrated Guide to Aquarium Fishes. Published by Galley and Price, an imprint of W.H. Smith and Sons Limited, England.
- 5. Dick Mills and Gwynne Vevere. Tropical Aquarium Fishes. Published by Salamander Books Limited. London.
- 6. Carcacson, R.H. A field guide to the Coral Reef Fishes of the Indian and West Pacific Oceans.
- 7. Guy N. Smith. Profitable Fish Keeping.
- 8. Maurice Melzak. Marine Aquarium Manual. B.T. Balsford Ltd., London.
- 9. Ornamental aquarium fishes of India- 1999- K.L.Tekrival and A.A. Rao.- TFH United Kingdom.