

**Govt. Degree College Baramulla  
(Autonomous)**

**SEMESTER 6<sup>th</sup>  
COURSE - MAJOR/MINOR**

**Subject: Industrial Fish and Fisheries**

**Title: ORNAMENTAL FISHERIES**

**Code: IFF22M601**

CREDIT: (4+2) THEORY: 04; PRACTICAL: 02  
CONTACT HOURS: 60 (Theory) + 30 (Practicals)

**Course Objectives:**

- *To familiarize students with the ornamental fisheries.*
- *To provide knowledge about the aquarium fabrication*
- *To understand the aquarium requirements of ornamental fishes*

**Learning outcomes:**

*On completion of the course, the student should be able to*

- *Construct and maintain different types of aquarium*
- *Breed and culture ornamental fishes and other ornamental organisms*

**UNIT I: Introduction to Ornamental Fisheries**

- 1.1 History of Aquarium fish keeping, Scope of ornamental fisheries
- 1.2 World status and status of ornamental fisheries in India.
- 1.3 Export, Import and trade of ornamental fisheries
- 1.4 Challenges faced by ornamental fisheries in India

**UNIT II: Ornamental Fisheries: Taxonomy & Biology**

- 2.1 Taxonomy, biology and breeding of important freshwater ornamental fishes (Gold fish, Guppy, Barbs, Koi carp)
- 2.2 Taxonomy, biology and breeding of important marine ornamental fishes- (Clown fish, Damsel fish, Butterfly fish)
- 2.3 Taxonomy and biology of ornamental organisms (Sea anemone, lobsters, and star fish)
- 2.4 Important ornamental plants in India-Taxonomy and biology

**UNIT III: Fabrication and Setting of Aquarium**

- 3.1 Aquarium and its types,
- 3.2 Construction of all glass aquaria
- 3.3 Setting of Aquaria
- 3.4 Aquarium accessories and decoratives

**Unit IV: Maintenance of Aquarium**

- 4.1. Maintenance of Water quality parameters
- 4.2. Cleaning of Aquarium
- 4.3. Different kinds of aquarium feed
- 4.4 History and development of Public aquarium

**Part 2: Laboratory Course (2 Credits)**

1. Morphological study of ornamental fishes
2. Morphological study of ornamental organisms (a) Sea anemone (b) Lobster (c) Shrimp (d) Star fish
3. Construction of all glass aquarium
4. Setting up of aquarium
5. Design and working aquarium accessories and equipments (a) Aerator (b) Filter (c) Heater and thermostat (d) Hand net
6. Visit to Aquarium cum Awareness centre

**Suggested Readings:**

1. Jena Burton. Aquarium fishes.
2. S. Mathur, L.L. Sharma and A.K Mathur. Hand book of fresh water ornamental fishes.
3. Guy, N. Smith. Profitable fish keeping
4. CLS., Srivastava. Aquarium fish keeping
5. Amita Saxena. Aquarium management
6. J.Schmidt. Aquarium plants