

**TKM COLLEGE OF ARTS & SCIENCE, KOLLAM**

**DEPARTMENT OF ZOOLOGY**

**ORNAMENTAL FISH CULTURE**

**SYLLABUS**

**TOTAL- 30 HOURS**

**UNIT 1. INTRODUCTION TO ORNAMENTAL FISH CULTURE 12 HOURS**

**1.1 Species of ornamental fishes, their taxonomy and biology. 7 hours**

Freshwater species - Live bearers and egg layers.

Marine ornamental species, Habitat and collection from nature.

Maturation, Breeding habits, Spawning, Parental care, Fertilization and development of eggs

Types of eggs-Pelagic and Demersal.

Hatching, larval rearing

Other marine ornamental organisms - anemones, lobsters, shrimps, octopus, starfish etc.

**1.2 Collection and Transport 5 hours**

Methods of collection. Types of nets-Cast net, drift net, drag net.

Transportation of live fish.

**UNIT 2. CONSTRUCTION AND MAINTENANCE OF AQUARIUM 15 HOURS**

**2.1 Construction of home/public aquarium 7 hours**

Materials used - Wooden and metal frames, Frameless tanks. Sealants and gums. Aerators and filters. Handnets and other equipments. Water quality requirements- Temperature, pH, Salinity etc. Gravel/pebbles, plants and other materials . Ornamental objects and fishes. Control of snail and algal growth. Cleaning the aquarium –Siphoning, Water exchange.

**2.2 Nutritional requirements of aquarium fishes. 5 hours**

Different kinds of feeds, Live feed culture (Daphina, Moina, Marine algae, Rotifers, Copepods, Artemia). Enrichment of live feed, Use of pigments for colour enhancement , Preparation of dry feeds.

**2.3 Common diseases of aquarium fishes, diagnosis and treatment. 3 hours**

**UNIT 3. ECONOMICS OF ORNAMENTAL FISH CULTURE**

**3 HOURS**

Aquarium keeping as a hobby, Fresh water and marine ornamental fish trade, Prospects of fresh water and marine ornamental fish –importing, exporting and income generation.