

ANEKANT EDUCATION SOCIETY'S
TULJARAM CHATURCHAND COLLEGE
OF ARTS, SCIENCE & COMMERCE, BARAMATI. BARAMATI
DEPARTMENT OF ZOOLOGY

Class: UG (All BA, BCom and BSc)

Title of Certificate Course: "Ornamental Fishes and Aquarium Management"

Credit: 2

No. of Lectures: 30

Course Co-ordinator: Mr. M. S. Shitole

Objectives of the course:

1. To inculcate importance of ornamental fish farming in relation with entrepreneurship development.
2. To give students knowledge about various techniques of ornamental fish breeding, rearing and its marketing to make them self-sustainable after graduation.
3. To teach techniques of construction of glass aquarium and its maintenance.
4. To teach students about fish food production and health related problems with ornamental fish.

THEORY- TOPICS / CONTENTS:

12L

Unit No.	Unit name	Lectures
1	Scope and application of ornamental Fishes and aquarium management.	1 L
2	Brief taxonomy and biology of Ornamental fishes- Freshwater (Gold fish & Angel fish), Brackish (Black Molly, Sword tail & Ray fish) and Marine (Anemone fish & Butterfly fish).	2 L
3	Introduction to aquarium. World aquarium trade and present status.	1 L
4	Design and construction of home and public aquaria (freshwater and marine).	1 L
5	Aquarium accessories - Aerators, filters (different types) and lighting. Water quality requirements.	1 L
6	Precautions to be taken for an ideal aquarium; Criteria of selection for aquarium fishes.	1 L
7	Requirements and design for the commercial production of ornamental fishes (Goldfish, Livebearers, Gouramies, Barbs and tetras, angel fish.	2 L
8	Natural ponds for the mass production of ornamental fishes. Mass production of	1 L



	aquarium plants	
9	Types of aquarium feed – Live & Artificial feed.	1 L
10	Ornamental Fish Diseases – Parasitic, Bacterial, Viral, Protozoan, Fungal & Deficiency diseases.	1 L

PRACTICALS BASED ON "CERTIFICATE COURSE IN ORNAMENTAL FISHES AND AQUARIUM MANAGEMENT": **18L**

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| 1) Study of common aquarium fishes, weed fishes and predatory fishes. |
| 2) Different aquarium plants and decorative materials identification. |
| 3) Construction of a glass aquarium and Introduction to aquarium accessories and equipments. |
| 4) Conditioning and packing of ornamental fishes. |
| 5) Preparation of feed and Setting-up of breeding tank for live bearers, barbs, goldfish, tetras, chichlids, gauramis, fighters and catfishes. |
| 6) Study of ornamental fish diseases and prophylactic measures. |

REFERENCES:

- Aquarium: Fish Keeping C B L Srivastava Published by Kitab Mahal.
- Aquarium Setting Up (Fish: Keeping and Breeding Them in Captivity) Axelrod, Herbert R. Published by Chelsea House Publications (1998).
- An Introduction to Fishes By Khanna S.S. – Central Book Depot, Allahabad (1993).
- Fish & Fisheries in India – By Jhingran V.G. – Hindustan Pub. Corporation – New Delhi.
- Aquaculture, Principles and Practices By Pillay T.V.R. – Fishing News Books (1988)

