

<b>Practical Plan</b>		
	<b>Name of the College: Government College of Arts, Science and Commerce, Sanquelim-Goa</b>	
<b>Name of Faculty: Dr Suman Tari</b>	<b>Subject: Zoology</b>	
<b>Paper code: ZOO 143: Aquarium fish keeping</b>	<b>Program: FY BSc</b>	<b>Division: Batch: I</b>
<b>Academic year: 2024-25</b>	<b>Semester: IV</b>	<b>Total Practicals/Labs: 10</b>
<b>Course Objectives:</b> <ol style="list-style-type: none"> <li>1. Understand the basic principles of aquarium fish keeping, including water quality, filtration, and habitat requirements.</li> <li>2. Outline the techniques of rearing /maintaining fishes in an aquarium.</li> <li>3. Identify the requirements for an Aquarium fabrication.</li> <li>4. Examine strategies for disease prevention, quarantine procedures, and treatment options for sick fish.</li> </ol>		
<b>Expected Course Outcome:</b> <ol style="list-style-type: none"> <li>1. Explain the biology of aquarium fishes, their nutritional requirements and care.</li> </ol>		

2. Identify the requirements for setting up and maintenance of an aquarium.

3. Evaluate aquarium fish diseases based on common symptoms.

**Student Learning Outcome:**

1. Explain the biology of aquarium fishes, their nutritional requirements and care.

2. Identify the requirements for setting up and maintenance of an aquarium.

3. Evaluate aquarium fish diseases based on common symptoms.

No. of Practical s/Labs planned	List of Experiments	Reference books Laboratory manual	Date planned
1	Study ( Origin, Habits, habitat, common characters and colour pattern, Feed and feeding behaviour, Sexual dimorphism and breeding behaviour) of common Aquarium fishes such as-Guppy, Molly, Sword tail, Gold fish, Angel fish, Anemone fish and Butterfly fish. (Specimens/ Pictures/ Photos		13/12/2024
1	Study of aquarium plants: Ceratophyllum, Java Moss, Vallisneria , Hydrilla sp. (Specimens/ Pictures/ Photos)		03/01/2025
1	Types of Aquarium tanks: Stand alone, Cabinet aquarium, Aquarium stand, Wall aquarium, Floor aquarium and Public aquarium. (Pictures/ Photos).		10/01/2025

1	Study of aquarium accessories: Aquarium Lights, Water filters, Water areator, Aquarium thermometer and heater, Aquarium substrates, Aquarium decors, etc (Specimens/ Pictures).		17/01/2025
1	Identification of live feed organisms -Infusoria, Paramecium, Daphnia, Bloodworm , Black worm Tubifex and Artemia (Specimens/ Pictures/ Photos) and Culture of live feed organisms -Paramecium, Euglena and Infusoria any one.		24/01/2025
1	Study of different types of formulated feed: Flakes, Crisps, Granules, Pellets, Discs and Vacation blocks. Frozen foods. (Specimens/ Pictures).		31/01/2025
1	Formulation of feed by using Pearson square method and preparation of formulated feeds.		07/02/2025
1	Study of Fish diseases: Fin rot, Swim bladder disease, Fluke, Dropsy and Ich. (Specimens/ Pictures).		14/02/2025
1	Setting up of an aquarium Part I		21/02/2025
1	Setting up of an aquarium Part II		28/02/2025
1			07/03/2025
1	Maintenance of Aquarium (Daily, Weekly and Monthly).		14/03/2025
1	Aquarium water quality check up for pH, Ammonia, Nitrate, Nitrite by using test kit -Part I		21/03/2025
1	Aquarium water quality check up for pH, Ammonia, Nitrate, Nitrite by using test kit -Part II		28/03/2025
1	Journal Certification		04/04/2025
1	Exams		11/04/2025

**Dr Suman Tari**

**Teacher In-Charge**