Andhra Christian College, Guntur

DEPARTMENT OF ZOOLOGY

TITLE OF THE PAPER: AQUARIUM FISH KEEPING AND MAINTENANCE

NO OF HOURS: 30

Objectives

1. To understand the industry trends and opportunities.
2. To impart the skill of fabricating an aquarium.
3. To understand health aspects of aquarium fish.
4. To understand the nutritional requirements of fish.
5. To gain knowledge of various water parameters and their control

Course Outcomes

By the end of the course students will be able to

CO1	Achieve competence to identify the fish of ornamental importance
CO2	Plan for aquarium making as a small scale industry
CO3	Exhibit the knowledge to design and fabricate an aquarium
CO4	Develop aquarium fish keeping as a hobby and as a source of livelihood
CO5	Diagnose and treat common diseases of aquarium fishes.

UNIT –I (6 HOURS)

1.1. The potential scope of aquarium fish industry as a cottage industry **2Hours**
1.2. Exotic and Endemic species of Aquarium fishes **4 Hours**

UNIT –II (9 HOURS)

2.1. Freshwater Aquarium: Purpose, Construction, Preparation and Maintenance Aquatic Plants and Animals and Food for Aquarium Fishes **5 Hours**
2.2. Aquarium Maintenance Tips and Fish Care Guidelines- Aquarium Water Changes, Testing the Aquarium water and filter maintenance. **4 Hours**

UNIT-III (15 HOURS)

3.1.Equipment used in the Maintenance of Aquarium, Essential Equipment, Aerator or Air pumps and Diffuser Stones, Aquarium Heaters and Thermostats, Various types of filters **4 Hours**
3.2. Conditions for an Ideal Aquarium **2 Hours**
3.3. Common diseases of aquarium fishes- diagnosis and treatment **5 Hours**
3.4. Use of pigments for colour enhancement **2 Hours**
3.5. Control of Algal blooms **1 Hour**

Suggested Readings

1. Ornamental Fish Culture and Aquarium Mangamen, A.D.Dholakia, Daya Publish in house
2. Fresh water Aquarium Models, John Tullock, Turner Publishing company
3. Setting up a Tropical Aquarium. By Stuart Thraves, Firefly Books Publication
4. Fresh water Aquarium Fish, Greg Gennings, Firefly Books Publication
5. Aquarium Fish, Mary Bailey and Gina Sandford, Anness publishing

45/50

Name
Roll No: 904

1. Define the Aquarium Describe the equipments used in the maintenance of Aquariums.

A. An aquarium is a glass container which displays the Aquatic organisms in a simulated natural environment by introducing Plants, rocks, gravels, artificial decorative etc.

Regulating the water in your fresh water aquarium is the most important role in in maintaining the health of your marine life. without proper maintenance fish can become anxious, irritable and unhealthy. these conditions will shorten the lives of your fish and create water that is neither suitable for life nor Pleasant to look at. Below you can find information on how to Perform this maintenance, and tips on troubleshooting Problems as they arise.

You should change about 15 to 25% of your aquarium's water every one two weeks. when you change your aquariums water, you should clean the rest of the

tank as well. the Percentage of 1/3 water and freaueny of water changes depend on the volume of fish and Plant life in your tank.

following a maintentance shedule will Prevent your aquarium from becoming overly dirty or hazardous to your fishis health. this schedule should consists of daily, weekly and monthly tasks.

Daily aquarium maintenance:-

you can keep your tank's water clean by Performing these simple tasks every day.

1. ensure all Pumps, filters, and lights are working Properly.
2. observe fish for negative side effects.
3. Remove excess food from the tank.
4. Top off the tank with treated water
5. check the water's temperature.

most- fresh water tanks should remain between 75° and 80° Fahrenheit.

weekly / semi - weekly aquarium maintenance:

Every one or two weeks, you should clean your fish tank and replace no more than 25% of your tank's water.

2. Preparation of Aquarium - write the procedure.

A. Aquarium may be defined as any vessel that will hold water and support aquatic life. In a more restricted sense it means a rectangular vessel with glass sides or glass like transparent sides stocked with growing plant and fishes.

- the Preparation aquarium is process by which the aquarium will be ready to support aquatic life and will be looking good at sight.

steps of up aquarium:- A Proverb goes on well Planned half done the programme of aquarium preparation include the aquarium shape and type

of the aquarium.

(ii) stand for the aquarium:-

the first requirement is a stand on which to place the aquarium.

(iii) collection of the Aquarium

the aquarium can be collected either by buying or self making.

Making of Aquarium tank:-

Firstly think the size of the tank as glass thickness depends on size length of aquarium is the deciding factor it must be twice the depth while height equal to depth

washing the aquarium:-

Then the aquarium should be wash by adding light salt solution we can also use fine sand to remove dirty substances on glass then wash with salt. then add warm water and rub a piece of cloth over the surface and remove water

leveling the aquarium:-

this can be checked by adding

wall water
media, a
and gravel
by some
depth
the

small water in aquarium. for planting media, a layer of loam then sand and gravel layers are recommended by some aquarists.
the depth of well washed coarse and required to three inches at the back sloping to an inch at the front

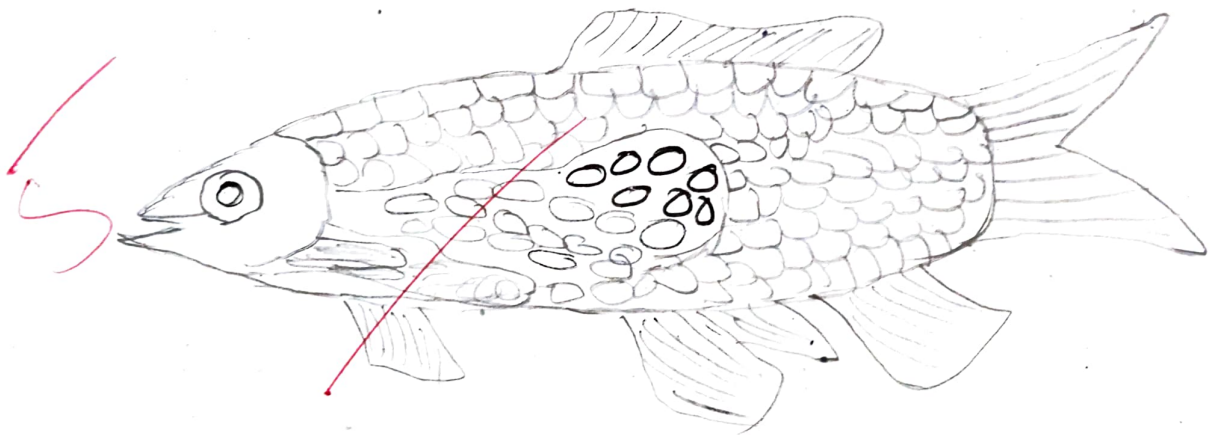
water supply and water quality:
the water should be slightly basic pH 7.4 temparature: 20°C ±1°C as specific for the species.
alkalinity: medium hard / oxygen saturation is done in tape water

Introducing the fishes:-
5-7 days after plantation the aquarium should be clean & plant show sign of growth. fish should buy from a reliable source bcoz from breeder.

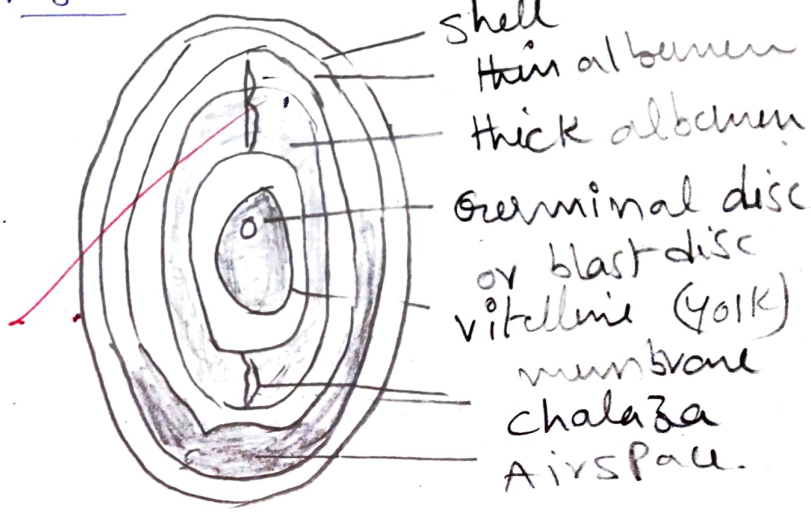
filtration:- the fecal matter and other waste sediment must be removed from aquarium.
for this reason, filtration in necessary. some filtration system filtered with biofilter

II. Identify and comment on
A. live Bearer
B. Egg layers
C. Aquatic Plant
D. Aquarium Accessories
E. Disease.

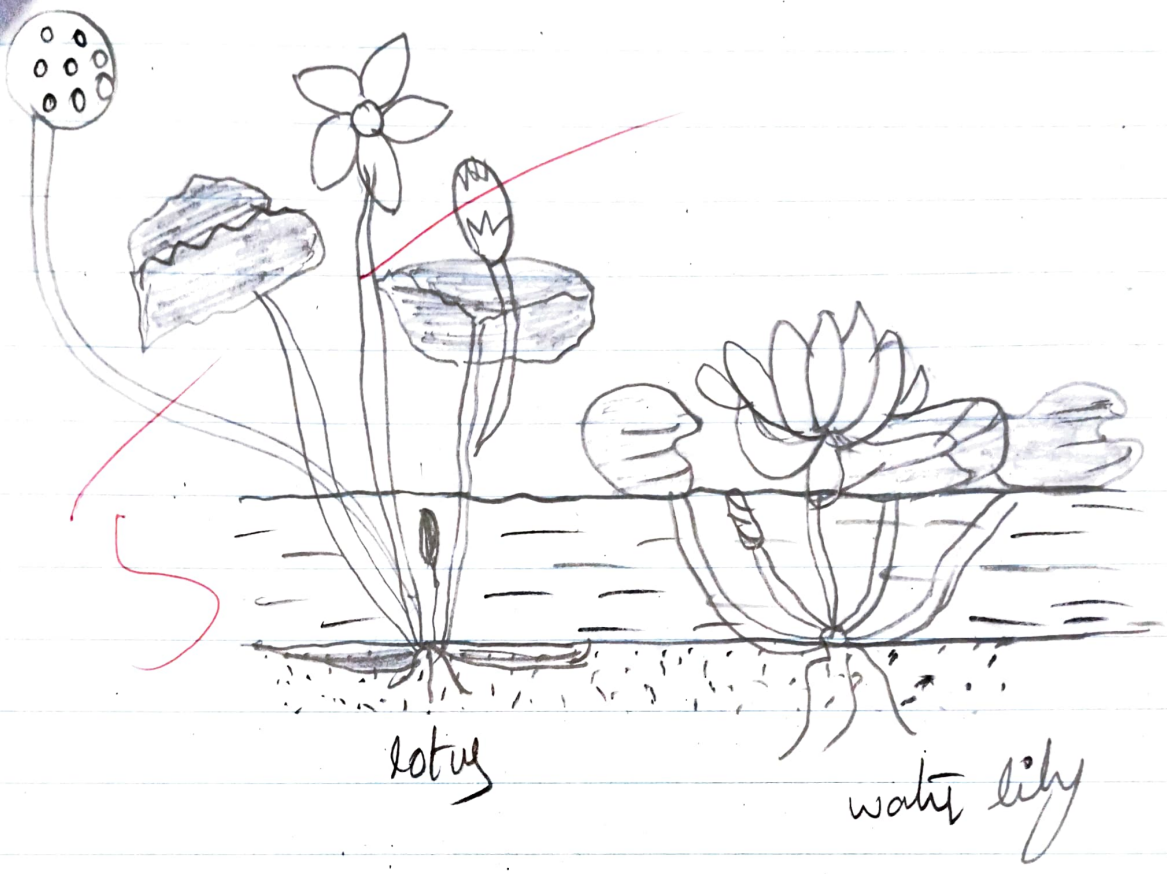
A:- live Bearer:-



B. Egg layers:-

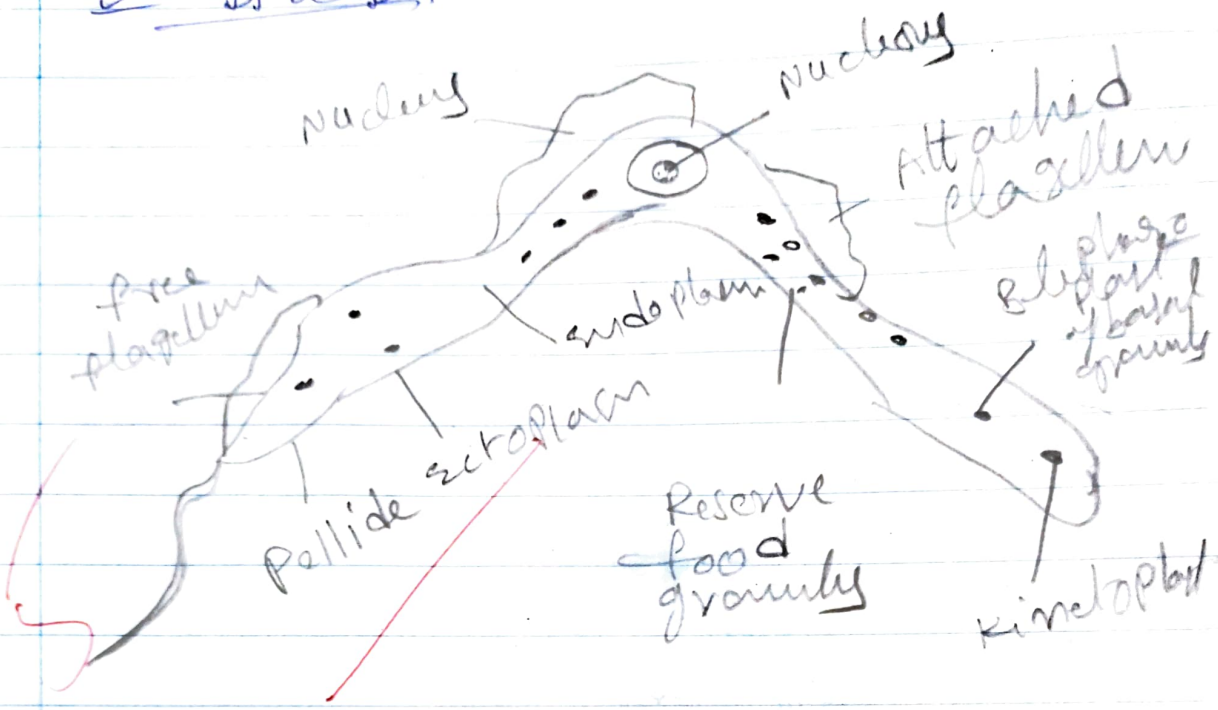


C:- Aquatic Plant-



D: Aquarium Accessories:-

E:- Disease:-



Aquarium