

SVSSC Government Degree College, SULLURPET

SPSR Nellore(dt), Andhra Pradesh

Department of Zoology

Add-On Programme-Syllabus

Fish and Shrimp Culture

Course Outcomes

1. Understand the priorities and development of aquaculture
2. Understand the role of natural and artificial feed
3. Understand the breeding techniques in carp fishes
4. Understand the maintenance of the hatcheries of carp fishes
5. Understand the economic importance of the aquaculture

Unit-1

- Definition, Scope and history of aquaculture and its present status. National priorities and aquaculture development in India.
- Selection of site for aquaculture, water quality and quantity sources of pollution

Unit-II

- Preparation and management of culture ponds: nursery, rearing and production ponds
- Culture practices of fish and shrimp: Traditional, extensive, modified extensive, semi- intensive and intensive
- Design and construction of fish and shrimp farms- water management systems of fish and shrimp farms

Unit-III

- **Bundh breeding, Induced breeding of carp by hypo physation and use of synthetic hormones.**
- **Design and construction of fish and shrimp hatcheries-Management of hatcheries**
- **Principles of disease diagnosis and health management**
- **Symptoms, prophylaxis and therapy of fish diseases**

Unit-IV

- **Principles of preservation, Methods of preservation-Traditional methods, Advanced methods**
- **Processing and preservation of fish and fish by products-Sea weed products**
- **Storage and transport of fresh fish, post mortem changes in fishes**

Reference Books:

1. **Jhingran V. G.- Fish and Fisheries of India**
2. **Rath RK-Fresh water aquaculture**
3. **MC Vey JP- Hand book of Mariculture**
4. **Pillay TVR-Aquaculture-Principles and Practices**
5. **Chakraborty & Sadhu AK- Biology Hatchery and culture technology Tiger Prawn**

Practical Syllabus:

1. **Economically important cultivable fin fish and shellfish**
2. **Estimation of dissolved oxygen, PH, Temperature, Satinity turbidity in the sample pond water**
3. **Dissection of digestive system of different cultivable fishes**
4. **Identification of fish gear and craft**
5. **Identification of fish and prawn diseases**
6. **Identification of economically important crustaceans**
7. **Formulation and Preparation of a balanced fish feed**
8. **Identification and study of Zooplankton**

Model Question Paper-Theory

Time: $2\frac{1}{2}$ hours

Max. marks=50 marks

Section-A

Answer any five Questions

2

3

5x10=50 marks

1

2

3

4

5

6

7

8

Section-B

Answer any four Questions

4x5=20 marks

1.

2

3
4
5
6
7
8

Model question Paper-Practical

Time: 2 hours

Max. marks+30

1. Estimate the dissolved oxygen in the given sample water- -10 M
2. Identify and comment on the following -5x2=10M

A

B

C

D

E

3. Estimate the PH of given sample of water -2M
4. Identify and comment on the diseases of the fish $-2 \times 1\frac{1}{2} = 3M$

A

B

5. Record -5M
- 6.

Zoology Add on programme-List of Students

Sl. No	Name of the Student	Class & Group
1	D. Anusha	III B. Sc, BZC
2	N. Rakshitha	III B. Sc, BZC
3	P. Vara Lakshmi	III B. Sc, BZC
4	T. Dhana Lakshmi	III B. Sc, BZC
5	G. Lalitha	III B. Sc, BZC
6	K. Pragna Sri	III B. Sc, BZC
7	N. Bala Chandra	III B. Sc, BZC
8	K. Murali Krishna	III B. Sc, BZC
9	S.K. Chandini	III B. Sc, BZC
10	T. Balaram	III B. Sc, BZC
11	K. Priya	III B. Sc, BZC
12	B. Naga veni	III B. Sc, BZC
13	K. Pujitha	III B. Sc, BZC
14	T. Shalini	III B. Sc, BZC
15	G. Suma	III B. Sc, BZC
16	U. Nageswara Rao	III B. Sc, BZC
17	D. Sai Vardhan Teja	III B. Sc, BZC
18	Ch. Bhagath Sai Yaswanth	III B. Sc, BZC
19	B. Reshma	III B. Sc, BZC
20	N. Munemma	III B. Sc, BZC