

SRI VENKATESWARA UNIVERSITY - TIRUPATI
B.S.c., (Honours) in AQUA CULTURE(MINOR)

W.E.F.2023-24
II SEMESTER

AQUA CULTURE MINOR

Course No.: 1 Taxonomy and Functional Anatomy of Fin Fish and Shellfish
credits :3

Course Outcomes

1. Acquire knowledge on the Classification of major groups of Finfish and Shell fish
2. Students will be familiar with the general characters of Finfish and Shell fish
3. Gain knowledge on the structure and functions of Digestive system
4. Understand the difference between the brain of fish and prawn
5. Acquire knowledge on the functional anatomy of fish and prawn

Unit I: General characters & Classification of Cultivable fin fish and shell fish

1.1 General Characters of Crustacea

1.2 Classification of Crustacean: Major groups up to orders and their important characters.

1.3 General Characters of fishes

1.4 Classification of Fishes: Major groups up to subclass and their important characters.

Unit 2: Digestive and Respiratory systems of Fish and shell fish

2.1: Digestive system of fish

2.2 Respiratory system of fish

2.3 Digestive system of Prawn

2.4 Respiratory system of prawn

Unit 3: Circulatory systems of Fish and shell fish

3.1 Cardiovascular system: Structure of heart in fishes

3.2 Blood vascular system in prawn

Unit 4: Nervous system of Fish and shell fish

4.1 Nervous system in fish: Structure and functions of Brain

4.2 Central Nervous system in prawn.

Unit 5 Reproductive system of Fish and shell fish

5.1 Urino-genital system in fishes

5.2 Reproductive system in prawn

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II SEMESTER

AQUA CULTURE MINOR

Course No.: 1 Taxonomy and Functional Anatomy of Fin Fish and Shellfish

Credits :1

1. Study of mouth parts in herbivorous and carnivorous fishes
2. Comparative study of digestive system of herbivorous and carnivorous fishes
3. Demonstration of brain of fish
4. Demonstration of cranial nerves of fish
5. Demonstration of Nervous system of prawn
6. Exposure of gills of prawn
7. Exposure of gills of fish

REFERENCE BOOKS

1. Bond E. Carl. 1979. *Biology of Fishes*, Saunders.
2. Halver JE. 1972. *Fish Nutrition*. Academic Press.
3. Hoar WS and Randall DJ. 1970. *Fish Physiology*, Vol. I-IX, Academic Press, New York.
4. Lagler KF, Bardach, JE, Miller, RR, Passino DRM. 1977. *Ichthyology*, 2nd Ed. John Wiley & Sons, New York.
5. Lovell J. 1989. *Nutrition and Feeding of Fish*. Van Nostrand Reinhold, New York.
6. Moyle PB and Joseph J. Cech Jr. 2004. *Fishes: An Introduction to Ichthyology*. 5th Ed. Prentice Hall.
7. Nikolsky GV. 1963. *Ecology of Fishes*, Academic Press.
8. Norman JR and Greenwood PH. 1975. *A History of Fishes*, Halsted Press.
9. Potts GW and Wootten RJ. 1984. *Fish Reproduction: Strategies and Tactics*, Academic Press.

Verified by Prof M.VANI(HOD OF ZOOLOGY) S.V ARTS COLLEGE: TPT: BOS CHAIR PERSON

Model Practical Question Paper

B.Sc (Aquaculture Minor) SECOND SEMESTER

Course :1 Taxonomy and Functional Anatomy of Fin fish and Shell fish.

Time: 2 Hrs

Max. Marks: 50

1. Determine Length – Weight relationship of Fishes. Marks – 15

2. Write about Marks: 5x5 =25
 - A. Oyster eggs
 - B. Eggs of Fishes
 - C. Gonadial maturity in Fish
 - D. Two crustacean larvae
 - E. Nest Building

3. Certified Record Marks : 10

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