

Term End External Examination 1ST Semester (Session-Feb 2025)

Subject: Industrial Fish and Fisheries

Course No and Title: IFF122M/ Fish & Shell Fish Biology

Time: 2.15 hours Max Marks:100 Min. Marks:40

Section A: Objective Type Questions

- Q1. Choose the appropriate Answer: (8x1.5=12)**
- Which of the following is a function of fish skin?
 A Protection and respiration B Digestion and excretion
 C Circulation and D None of the above reproduction
 - What type of fish structure is mainly responsible for buoyancy and movement?
 A Scales B Fins
 C Mouth D Skin
 - Which of the following commercially important shellfish species is commonly farmed in India?
 A *Penaeus indicus* (Indian White Shrimp) B *Homarus americanus* (American Lobster)
 C *Pecten maximus* (Great Scallop) D *Astacus astacus* (European Crayfish)
 - What is the common name of *Macrobrachium rosenbergii*?
 A Mud lobster B Blue crab
 C King squid D Giant freshwater prawn
 - How many chambers are present in the heart of most fish?
 A Three B Two
 C Four D Five
 - What is the primary excretory product of most bony fishes?
 A Urea B Uric acid
 C Ammonia D Carbon dioxide
 - Which part of the fish nervous system is responsible for coordinating voluntary movements?
 A Medulla oblongata B Cerebellum
 C Spinal cord D Olfactory lobes
 - The pituitary gland in fishes is primarily responsible for regulating growth and reproduction

- A Producing digestive enzymes B Regulating growth and reproduction
 C Controlling vision D Excreting waste

Section-B: Descriptive Type Questions (Short Type)

Q2: Answer all the Questions (8 x 4 =32)

- Describe different types of scales found in fishes.
- How fishes are identified based on morphometric and meristic characters.
- Differentiate between the Morphology of Common carp and Trout fish
- Explain the morphometrics of Prawn and Crabs.
- Write a brief note on the digestive system of a finfish.
- Describe the major features of the circulatory system of a finfish.
- Comment on the main components of fish nervous system.
- Discuss in brief sensory system in fishes.

Section – C: Descriptive Type Questions (Medium Type)

Answer all the questions: (4 x 7=28)

- Q3.** Classify *Penaeus indicus*, *Macrobrachium rosenbergii*, Common carp, *Schizothorax* and Trout fish upto order level.
OR
 Explain the Colouration in fishes & modification in mouth
- Q4.** Discuss Respiration in fin and shellfishes.
OR
 Discuss Circulatory system in fishes?
- Q5.** Importance and status of *Macrobrachium rosenbergii*, crab and Squid fisheries in Inida
OR
 Discuss Morphology of Common carp and squids

Q6. Elaborate the Role of Pituitary in fish growth and reproduction.

OR

Elaborate the functioning of thyroid glands in fish.

Section – D: Descriptive Type Questions (Long Type)

Answer any two of the following: (2 x 14=28)

- Q7.** Elaborate on the structure, function and modifications of skin in fishes and shellfishes
- Q8.** Write the Characteristics and importance Labeo rohita, Oil Sardines and Hilsa
- Q9.** Discuss in detail excretion and osmoregulation in fishes
- Q10.** Discuss Fish Endocrine system in detail.