

DEPARTMENT OF ZOOLOGY
MARWARI COLLEGE, RANCHI
SEMESTER VI –PAPER- DSE 3

FISH AND FISHERIES

Multiple choice questions:

- i. Cartilaginous fishes are:
 - a. Placoderms
 - b. Acanthodians
 - c. Chondrichthyes
 - d. Osteichthyes
- ii. Pisciculture is rearing and production of:
 - a. Fishes
 - b. Birds
 - c. Reptiles
 - d. Mammals
- iii. Inland fisheries are:
 - a. Deep sea fishing
 - b. Capturing fishes from sea coast
 - c. Raising and capturing fishes in fresh water
 - d. Oil extraction from fish
- iv. The major osmoregulatory organ in fishes is:
 - a. Gills
 - b. Kidney
 - c. Liver
 - d. Skin
- v. Placoid scales are present in:
 - a. Salmon
 - b. Lamprey
 - c. Sharks
 - d. Common carp
- vi. Rat fish is the common name of:
 - a. Salmons
 - b. Sharks
 - c. Chimeras
 - d. Coelacanth
- vii. Induced breeding involves feeding of:
 - a. Heart
 - b. Muscles

- c. Pituitary
 - d. Corpuscles of stannous
- viii. *Labeo rohita* has :
 - a. Placoid scale
 - b. Ganoid scale
 - c. Cycloid scale
 - d. No scale
- ix. Chloride cells are present in:
 - a. Gills
 - b. Kidney
 - c. Skin
 - d. Urinary bladder
- x. Coelacanth belongs to class:
 - a. Elasmobranch
 - b. Holocephali
 - c. Sarcopterygii
 - d. Actinopterygii

Give one example (scientific name) of each:

- i. Elasmobranch
- ii. Holocephali
- iii. Sarcopterygii
- iv. Actinopterygii
- v. Surface feeder fish
- vi. Bottom feeder fish
- vii. Fish with cycloid scale
- viii. Fish with placoid scale
- ix. Bioluminescent fish
- x. Fish with electric organ
- xi. Marine fish
- xii. Freshwater fish

Write short notes on the following:

- i. Herbivorous fishes
- ii. Hydrodynamics
- iii. Cycloid scales
- iv. Ctenoid scales
- v. Placoid scales
- vi. Ganoid scales
- vii. Swim bladder

- viii. Buoyancy
- ix. Bioluminescence
- x. Schooling
- xi. Wounding gears
- xii. Catamaran
- xiii. Polyculture
- xiv. Compound diets for fishes
- xv. Transgenic fish
- xvi. Zebra fish as a model organism in research
- xvii. Fish meals as byproducts
- xviii. Isinglass
- xix. Fish liver oil
- xx. Types of fins
- xxi. Teleostean kidney
- xxii. Luminous bacteria
- xxiii. Lateral line system
- xxiv. Gill racker
- xxv. Viral haemorrhagic septicemia

Answer the following long questions:

1. Classify superclass fish upto classes.
2. What are the various types of feeding habits of fishes? Classify fishes on the basis of feeding habits.
3. Discuss the mechanism of locomotion in fishes.
4. Diagrammatically explain the structure of gills in fishes. Discuss the mechanism of gaseous exchange in fishes.
5. What is osmoregulation? How do elasmobranchs osmoregulate their bodies?
6. What are the various reproductive strategies used by Indian freshwater and marine fishes?
7. What are the various electric organs found in fishes? Diagrammatically explain the electric organ of Torpedo.
8. Discuss parental care in fishes. Give one example of each strategies.
9. Define the term migration. Discuss mechanism of migration in fishes.
10. Write the scientific name of any five marine fishes whose culture is practiced in India.
11. What are the various environmental factors influencing the seasonal variations in fish catches in the Arabian sea?
12. What are the various environmental factors influencing the seasonal variations in fish catches in Bay of Bengal?
13. Discuss various fishing crafts and gears used as fishing techniques.
14. What are the various fisheries law and regulations implemented in India?

15. Differentiate between extensive, semi-intensive and intensive culture of fish.
16. Describe the strategies used in pen and cage culture.
17. What is composite fish culture? Explain with examples.
18. What is induced breeding? What are the various stages of induced breeding technique?
19. Describe the role of quality of water in aquaculture.
20. Describe various bacterial diseases in fishes and the treatments used to cure them.
21. Describe various viral diseases in fishes and the treatments used to cure them.
22. Describe various parasitic diseases in fishes and the treatments used to cure them.
23. Write an essay on fish by-products.