

**2023**

**Time - 3 hours**

**Full Marks - 60**

*Answer all groups as per instructions.  
Figures in the right hand margin indicate marks.  
Candidates are required to answer  
in their own words as far as practicable.  
Draw labelled diagrams wherever necessary.*

**GROUP – A**

1. Fill in the blanks. (all)

[1 × 8

- (a) \_\_\_\_\_ are the functional part of the gill.
- (b) \_\_\_\_\_ is a poisonous fish.
- (c) \_\_\_\_\_ is known as climbing perch.
- (d) Caudal fin in bony fish is \_\_\_\_\_.
- (e) Pancreas of the shark is rich in \_\_\_\_\_.
- (f) Gill covering of Bony fish is known as \_\_\_\_\_.
- (g) \_\_\_\_\_ is an important hydrostatic organ in fish.
- (h) Light producing organs in fishes are \_\_\_\_\_.

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[ 2 ]

- (i) \_\_\_\_\_ scales are present in cartilaginous fish.
- (j) \_\_\_\_\_ hormone is responsible for induced breeding.

**GROUP – B**

2. Write notes on any eight of the following within two to three sentences each. [1½ × 8

- (a) Weberian ossicle
- (b) Electric organ
- (c) Catadromous fishes
- (d) Raft
- (e) Cast nets
- (f) Fish oil
- (g) Otolith
- (h) Gill rot
- (i) Cycloid scale
- (j) Rearing pond

**GROUP – C**

3. Write notes on any eight of the following within 75 words each. [2 × 8

- (a) Hydro dynamics

- (b) Deep freezing
- (c) Zebra fish
- (d) Column feeder
- (e) Hyoid apparatus
- (f) Exotic (fish) Carps
- (g) Lateral line sense organ
- (h) Breeding Happa
- (i) Longlines and hooks
- (j) Air breathing fish

**GROUP – D**

4. Answer any four of the following questions within 500 words each.

- (a) Give an account of Marine Fisheries in India. [6]
- (b) Describe the technique of Induced Breeding in fishes and its significance. [6]
- (c) Give an account of Inland fishing crafts and gears used in India. [6]
- (d) Describe the preparation and maintenance of Fish Aquarium. [6]

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[ 4 ]

- (e) Describe the migration of fish. [6]
- (f) Describe the Fish Byproduct in detail. [6]
- (g) Give an account of Bacterial diseases and write down its diagnosis and treatment. [6]