

2018

AQUACULTURE MANAGEMENT

[Honours]

PAPER –I

Full Marks : 90

Time : 4 hours

*The figures in the right-hand margin indicate marks
Candidates are required to give their answers in their
own words as far as practicable*

Illustrate the answers wherever necessary

1. Answer any *ten* questions from the following :

- (a) Differentiate plankton from nekton. 2 × 10
- (b) State the importance of EEZ.
- (c) What are structural components of lateral line system of fishes?

(Turn Over)

- (d) Point out the distinctive features of female prawn.
- (e) State the importance of swim bladder in fishes.
- (f) How would you calculate the fecundity of fishes ?
- (g) State the distribution of any two dipnoan fishes.
- (h) State the significance of Gonado-Somatic-Index.
- (i) Enlist name of fishes caught in gill net.
- (j) Write the name and functions of any one associate digestive gland of fishes.
- (k) Define gastric fish with example.
- (l) How many of our states have sea-connection ? How much costline India have ?
- (m) Distinguish between inshore and offshore fishery.

- (n) What are specific features of gut of herbivorous fishes ?
- (o) State the functions of gill raker of teleost fishes.

GROUP – A

2. Answer any *two* questions of the following : 10×2

(a) Point out distinctive features and examples of following orders : $2\frac{1}{2} \times 4$

(i) Clupeiformes

(ii) Rajiformes

(iii) Perciformes

(iv) Siluriformes.

(b) (i) Compare among major and minor carp.

(ii) Describe the morphometric features of a fish. $4 + 6$

(c) (i) Differentiate osmoregulator from osmoconformer with example.

(ii) Briefly narrate the migratory mechanism of Hilsa fishes. 4 + 6

(d) Write short note on : $2\frac{1}{2} \times 4$

(i) Hepatopancreas

(ii) Structure of gill

(iii) Male reproductive system of teleost fish.

(iv) Features of fish blood vessels.

3. Answer any *one* question of the following : 15 × 1

(a) (i) Classify Phylum Mollusca up to sub-class with living examples and features.

(ii) Briefly describe the age determination process of fishes. 10 + 5

(b) Short notes on : 5 × 3

(i) Digestion process of fishes

(ii) Hormonal control of fish reproduction

(iii) Length-weight relationship of fishes.

- (iv) Embryonic development of shrimp
- (v) Food and feeding habit of prawn.

GROUP – B

4. Answer any *two* questions of the following : 10 × 2

(a) (i) Compare between culture and capture fisheries.

(ii) Briefly explain the demersal fisheries of Bay of Bengal. 4 + 6

(b) (i) What is inshore fishery ?

(ii) Give an account on the inshore fisheries of India.

(iii) Briefly describe the conservation strategies of inshore fisheries. 2 + 5 + 3

(c) (i) What is cold water fishery ?

(ii) Describe the present status and threats of cold water fishery of India.

(iii) Add a note on fisheries potentialities of Indian reservoirs. 2 + 5 + 3

- (d) Short notes on : $2\frac{1}{2} \times 4$
- (i) Constraints of Indian reservoirs
 - (ii) Trends in Indian Aquaculture
 - (iii) Problems of riverine fisheries
 - (iv) Fisheries potentialities of Hooghly-Matlah estuary.

5. Answer any *one* questions of the following : 15×1

- (a) (i) What is trawling ?
- (ii) Briefly describe the mechanism of pair-trawling.
- (iii) Give an account on the Exclusive Economic Zone (EEZ) of India. $2 + 6 + 7$
- (b) Write short notes on : 5×3
- (i) Conservation of marine fishery resources
 - (ii) Application of Remote Sensing in fisheries resources exploitation.

- (iii) Potential Fishing Zone(PFZ)**
 - (iv) Coastal Regulation Zone(CRZ)**
 - (v) Brackish water fishery resources.**
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