

2017

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) Define Periphyton. Give two examples. 2 × 10
- (b) Define EEZ.
- (c) What is Arborescent organ of fishes ? State its function.

- (d) Differentiate between penacid and non-penacid shrimp.
- (e) Differentiate between major carp and minor carp.
- (f) Name the traditional gears used in fishing in West Bengal.
- (g) Define haematopoiesis.
- (h) What are fishery Resources of chilika lake ?
- (i) Differentiate between estuary and reservoir.
- (j) What is clasper ? Mention its function.
- (k) What is positive and negative estuary ?
- (l) Define Gonado Somatic Index (GSI) of a fish.
- (m) Name 4 exotic fishes along with their country of origin.
- (n) Write the function of gill racker.
- (o) What is gastric and agastric fish ?

GROUP – A

2. Answer any *two* questions : 10 × 2
- (a) (i) Describe the morphometric and meristic characteristics of taxonomic significance of fish.
- (ii) Describe the distinctive characteristics of order perciformes with examples. 5 + 5
- (b) (i) What are the factors affects food and feeding habits of fishes ?
- (ii) How to estimate the age of fishes ? Illustrate in detail. 5 + 5
- (c) (i) Describe osmoregulatory process in anadromous fishes.
- (ii) Explain the respiratory mechanism of any one fishes. 5 + 5
- (d) (i) Give an account on marking and tagging and its importance.
- (ii) Write briefly on digestive system of prawn. 5 + 5

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

(a) (i) Give the taxonomic classification of *Tenualosa ilisha*.

(ii) Describe the hormonal control of fish reproduction. $5 + 10$

(b) (i) Give an account on nervous system of prawn.

(ii) Describe in detail about urinogenital system of any one fresh water fishes.

GROUP – B

$$7\frac{1}{2} + 7\frac{1}{2}$$

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

(a) Give a brief account on major riverine system in India, and its fisheries resources. Add brief note on river ranching. $4 + 4 + 2$

(b) (i) Briefly explain the inland capture fishery resources in India.

(ii) Briefly narrate the problems of lake fishery.

(5)

- (iii) Add a note on fisheries of Hooghly Matlah estuary in brief. $4 + 4 + 2$
- (c) (i) Mention the present status of cold water fisheries in India.
- (ii) Write briefly on brackish water shrimp farming. $5 + 5$
- (d) (i) Explain the conservation strategies of Indian reservoirs.
- (ii) Mention the beneficial uses of Remote sensing in marine capture fisheries. $5 + 5$
5. Answer any *one* question : 15×1
- (a) (i) Give an account on the mackerel fishery of India.
- (ii) Enlist the factors affecting spawning and fecundity of fishes. $10 + 5$
- (b) Write short notes on : 3×5
- (i) Offshore fisheries

(ii) Potential Fishing Zone (PFZ)

(iii) Deep Sea Fisheries

(iv) Cage culture

(v) Wet lands.
