

2016

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

[NEW SYLLABUS]

1. Answer any *ten* questions from the following : 2×10
 - (a) Define plankton. Give two examples.
 - (b) Define EEZ.
 - (c) Mention the function of lateral line of fish.

- (d) What are the functions of swim bladder ?
- (e) Differentiate between male and female shrimp.
- (f) Define fecundity.
- (g) Mention the characteristics feature of order clupeiformes. Give an example.
- (h) Define Gonado-Somatic Index.
- (i) Mention name of four fishing gear used in Bay of Bengal.
- (j) Write the name of two associate digestive glands in fishes.
- (k) Differentiate herbivorous fishes from carnivorous fishes.
- (l) Name four maritime states of India.
- (m) Define Offshore fishery with example.
- (n) What is agastric fish ? Cite an example.

GROUP – A

2. Answer any *two* questions : 10 × 2

(a) (i) Discuss the morphometric characters of a fish.

(ii) Mention distinctive characters with example of the following order of fish— Perciformes and Cypriniformes. 4 + 6

(b) Define Carp. Distinguish between major and minor carp. Cite two examples of Indian major and minor carp. 2 + 6 + 2

(c) (i) What do you mean by Osmoregulator and Osmoconformer ?

(ii) Describe the Osmoregulatory process in anadromous fish. 4 + 6

(d) Give an account of the urinogenital system of any one fresh water fish. What do you mean by hepatopancreas ? 8 + 2

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

(a) (i) Classify fishes on basis of their feeding habit.

(ii) Discuss on the modification of mouth of fish due to their feeding habit. 5 + 10

(b) (i) Describe the hormonal control of fish reproduction.

(ii) Write a note on the respiratory organ in fish. 10 + 5

GROUP – B

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

(a) Give an account of the coastal water fisheries of West Bengal. Comment on its over exploitation and suggest on conservation strategy. $5 + 2\frac{1}{2} + 2\frac{1}{2}$

(b) (i) Define culture and capture fisheries.

(ii) Write the scientific name of two brackish water and two marine fish species.

(iii) What do you mean by deepsea fisheries ? 3 + 4 + 3

(c) (i) Mention the characteristics feature of cold water fishes.

(ii) Discuss about present status of cold water fishery in India. 3 + 7

(d) (i) Write down the fishery potentiality of Indian reservoirs.

(ii) Explain the conservation strategies of Indian reservoir. 6 + 4

5. Answer any *one* question : 15 × 1

(a) (i) Classify lakes on the basis of trophic level with example.

(ii) Enlist different factors affecting the fecundity of fish. 8 + 7

(b) Write notes on : $7\frac{1}{2} + 7\frac{1}{2}$

(i) Remote sensing and its application in fisheries resource identification.

(ii) Marking and tagging procedure in fish population survey.