

2017

AQUACULTURE MANAGEMENT

[Honours]

PAPER – IV

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 *ten* questions from the following : 2×10
 - (a) Differentiate between fresh fish and spoiled fish.
 - (b) Distinguish between artificial drying and natural drying.

(Turn Over)

- (c) Write scientific name of two sea-weeds.
- (d) What do you mean by fjord estuary ?
- (e) What do you mean by biomagnification ?
- (f) What is plankton and nekton ?
- (g) Mention the dis-advantages of chemical fertilizers.
- (h) What is FRP ? State its uses.
- (i) Define point and non-point sources of aquatic pollution.
- (j) Point out the use of floats and sinkers.
- (k) What is raw sewage ?
- (l) What is neuston ? Cite an example.
- (m) What are the merits and demerits of synthetic fibres ?
- (n) State the utility of Net Haulers.
- (o) Write the name of two each fish by products and value-add products.

GROUP – A

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

(a) (i) What is sodi-alkaline soil ?

(ii) Discuss the properties of soil.

(iii) Briefly explain the role of soil in pond productivity.

(iv) Add a note on soil management.

$$1\frac{1}{2} + 2 + 3 + 3\frac{1}{2}$$

(b) (i) What is fertilizer ?

(ii) Briefly narrate the kinds of fertilizer.

(iii) Distinguish between organic manures and chemical fertilizers.

(iv) What is the role of fertilizer in aquaculture production ?

$$1\frac{1}{2} + 2 + 3 + 3\frac{1}{2}$$

(c) (i) What is lake ?

(ii) Briefly narrate the classification of lakes.

(iii) Discuss the biotic communities of any one Indian lakes.

(iv) Add a note on Lake Management.

$$1\frac{1}{2} + 4 + 2 + 2\frac{1}{2}$$

(d) (i) Define reservoir.

(ii) Briefly explain the distribution of different reservoir of Indian sub-continent.

(iii) Add a note on fisheries potentialities of Indian reservoirs.

(iv) Briefly describe the reservoir management.

$$1\frac{1}{2} + 3 + 3 + 2\frac{1}{2}$$

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

(a) (i) What is pond ?

(ii) Briefly explain the types of pond.

(iii) Add a note on eutrophication of pond.

(5)

(iv) Give an account on the chemical properties of pond water..

(v) Add a note on pond management.

2 + 4 + 4 + 3 + 2

(b) (i) What is aquatic pollution ?

(ii) Briefly explain the effect of aquatic pollution on aquatic biota.

(iii) Enlist different effluent discharges from different industries to the aquatic habitat.

(iv) What are the impacts of pesticides on aquatic life ?

(v) Add a note on biological assessment of pollution.

2 + 4 + 3 + 3 + 3

GROUP – B

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

(a) (i) What is rope ?

(ii) Briefly describe the properties of rope.

(iii) Differentiate between rope and yarn.

(iv) Add a note on Leaded ropes.

$$1\frac{1}{2} + 3 + 3 + 2\frac{1}{2}$$

(b) (i) What is gill net ?

(ii) Enlist the name of fishes harvested in gill net.

(iii) Add a note on tuna long lines. $2 + 3 + 5$

(c) (i) What is traditional fishing techniques ?

(ii) Briefly discuss different traditional fishing technique method used in West Bengal.

(iii) Add a note on bull trawling. $2 + 5 + 3$

(d) Write notes on following :

$$2\frac{1}{2} \times 4$$

(i) Power blocks

(ii) Smoking

(iii) Traps.

(iv) Line fishing.

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

(a) (i) Define pre-rigor and post-rigor fishes.

(ii) Briefly narrate the characteristics of spoiled fishes.

(iii) Discuss the needs of hygienic handling of fresh fishes.

(iv) Add a note on use of chemicals during the processing and cold storage of fishes. 3 + 3 + 4 + 5

(b) Write notes on following : 3 × 5

(i) Tunnel dryer

(ii) Colombo curing

(iii) Packaging materials

(iv) Icing

(v) Microbes causing spoilage.