#### 2016

## 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

### [OLD SYLLABUS]

1. Answer any ten of the following:

 $2 \times 10$ 

- (a) What are importance of pH in pond water?
- (b) Write the scientific name of any two plankton of marine water Body.

- (c) State the significance of macro vegetation.
- (a) Write the advantages of natural drying.
- (e) What do you mean by bioaccumulation?
- (f) Define plankton and necton.
- (g) Write the functions of Ecosounder.
- (h) State the role of decomposer of an aquatic ecosystem.
- (i) What are the importance of live food in fish culture pond.
- (j) Define is inglass.
- (k) Write the scientific name of any two sea weeds.
- (1) Write the merit and demerits of plastic packaging.
- (m) What is icing.
- (n) Write about quality management.

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- (o) Define craft with example.
- (p) What do you mean by curing of fish?

#### GROUP - A

- 2. Answer any two of the following:  $10 \times 2$ 
  - (a) (i) State the importance of organic manures in the fish farm.
    - (ii) Write the relation between produces and consumer.
    - (iii) Add a note on thermal stratification of Lake. 2+4+4
  - (b) (i) What is acidic soil?
    - (ii) How would you correct the alkalinity of water.
    - (iii) Explain the relationship of fish growth with water quality and food availability. 2+3+5
  - (c) (i) Write the steps of sewage water treatment.

- (ii) Describe the effect of pesticides and in organic manures in fish pond. 5+5
- (d) Write short notes on:

 $2\frac{1}{2}\times4$ 

- (i) Soil organic matter
- (ii) Shadow zone
- (iii) S.D.N.A.R channel
- (iv) Primary stain.
- 3. Answer any *one* question from the following:  $15 \times 1$ 
  - (a) (i) Briefly explain the zonation of ocean.
    - (ii) Describe physical and chemical properties of an ideal inland pond water.
    - (iii) Explain the importance of productivity.
    - (iv) Discuss with diagram of a aquatic food web. 3+4+2+6
  - (b) Write short notes on:

 $5 \times 3$ 

(i) Ecology of reservoir

# (ii) Entrophication

(iii) Radio active pollution.

### GROUP - B

- 4. Answer any two questions from the following:  $10 \times 2$ 
  - (a) (i) What do you mean by fishing harbours?
    - (ii) Explain about the fishing accessories.
    - (iii) State the process of fishing operation in abyssal zone. 2+3+5
  - (b) (i) Define smoke fish.
    - (ii) State the impact of pathogenic microorganisms on processed food.
    - (iii) Explain the production procedsure of fish meal. 2+3+5
  - (c) (i) What is quality assurance?
    - (ii) Write the difference between fish biproducts and value added product with examples.

(iii) Describe about fish freezing process.

2 + 4 + 4

(d) Write short notes on:

- $2\frac{1}{2}\times4$
- (i) Responsibility of HACCP team.
- (ii) Antibiotics used in processing plant
- (iii) Tickler chain
- (iv) Twines and rope.
- 5. Answer any one from the following:

 $15 \times 1$ 

- (a) (i) Define hanging co-efficient of Net.
  - (ii) State the advantages of thimbles and shackly.
  - (iii) Write the importance of non-mechanized vessels.
  - (iv) Describe different types of gear operates in West Bengal 2+4+3+6
- (b) (i) What is characteristics of rigor fish.
  - (ii) Write the microbial causes of fish spoilage.

- (iii) What do you mean by fish landing centre?
- (iv) Briefly describe the preservation of gears. 3+2+3+7