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**63 (FY)SEM-2/SEC2/ZOOSSEC1023**

**2024**

**ZOOLOGY**

Paper : ZOOSSEC1023

**(Aquaculture)**

Full Marks : 40

Pass Marks : 16

Time : Two hours

***The figures in the margin indicate full marks for the questions.***

1. Answer the following questions : 1×5=5

(a) The p<sup>H</sup> scale of water preferred for freshwater aquaculture

(i) 7.5-8.5

(ii) 6.5-7.5

(iii) 5.5-6.5

(iv) 6.0-7.0

- (b) The characters of ornamental fishes are
- (i) Attractive and colourful
  - (ii) Visually small sized and peaceful nature
  - (iii) Correct only (i)
  - (iv) Correct both (i) and (ii)
- (c) The Fin and Tail Rot disease of fishes is caused by
- (i) Protozoa
  - (ii) Bacteria
  - (iii) Virus
  - (iv) Fungus
- (d) The economically important aquaculture species are
- (i) Carp, trout, salmon, and tilapia
  - (ii) Carp, catfish, goldfish, and tilapia
  - (iii) Carp, catfish, salmon, and trout
  - (iv) Crap, catfish, tilapia, and gourami

- (e) The fish seed refers to
- (i) Hatchling stage
  - (ii) Spawn stage
  - (iii) Fry and Fingerling stage
  - (iv) All of the above

2. Answer the following questions : **(any five)**  
2×5=10

- (a) Why is biotechnology important for fish production ?
- (b) What is the advantage of pen and cage culture ?
- (c) What do you mean by sustainable aquaculture ?
- (d) What do you mean by brood stock management ?
- (e) Write the different types of culture system in aquaculture.
- (f) Write about the preparation of compound diets for fishes.
- (g) What is the main water-quality criteria for aquaculture ?

3. Answer the following questions : **(any three)**  
5×3=15

- (a) Explain the preparation and maintenance of fish aquarium.
- (b) Describe briefly on the management of finfish hatcheries.
- (c) Compare between Polyculture and composite fish culture type of fish farming.
- (d) Explain the Induced breeding mechanism in aquaculture.
- (e) Describe about the aquatic weed management in aquaculture.

4. Answer the following questions : **(any one)**  
10×1=10

- (a) What is integrated fish farming? Write the scope of integrated fish farming in aquaculture. 2+8=10
- (b) What are the common fish diseases? Write about the symptom and treatments of major fish diseases. 3+7=10