

DIPLOMA IN AQUACULTURE (DAQ)

Term-End Examination

June, 2024

BAQ-002 : FRESHWATER AQUACULTURE

Time : 3 Hours

Maximum Marks : 100

Note : (i) *Attempt any five questions.*

(ii) *All questions carry equal marks.*

(iii) *Support your answer with well-labelled diagrams wherever necessary.*

1. (a) Briefly describe the technique of induced breeding by hypophysation in carps. 10
- (b) Discuss the role of substitutes of pituitary gland extract (PGE) successfully used to induce breeding in major carps. 10
2. (a) What is polyculture ? What are the basic principles of polyculture ? 2+8

- (b) Give the zoological names of *five* commonly encountered species of predatory fishes and discuss the methods of their removal. 10
3. (a) Name the best model of integrated fish farming from the viewpoint of input-output. Describe it in detail. 10
- (b) What is the common name for *Tor putitora* and why is it called so ? Add a note on its spawning behaviour and spawning ground. 2+8
4. (a) List egg layers ornamental fishes and describe the morphology, identification and breeding pattern of any *one* of them. 10
- (b) Describe the air-breathing organs of murrels. 5
- (c) How is *Azolla* useful to the agriculturist ? 5
5. (a) Write the functions of the following structures : 5
- (i) Statocyst
 - (ii) Ospharidium
 - (iii) Ctenidia
 - (iv) Organ of Bojanus
 - (v) Seminal Vesicles

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- (b) Describe the various implantation methods and surgical procedures employed for freshwater pearl culture. 15
6. Which nutritional constituents are required in the diet of fish under culture ? What is their significance ? 20
7. Write short notes on any *two* of the following topics : 10×2=20
- (i) Biology of any *one* small catfish
 - (ii) 'Best Buy' technique of Feed formulation
 - (iii) Good Management Practice for Prawn Hatcheries