

DIPLOMA IN AQUACULTURE (DAQ)

Term-End Examination

December, 2021

BAQ-002 : FRESH WATER AQUACULTURE

Time : 3 hours

Maximum Marks : 100

Note : Attempt any **five** questions. All questions carry equal marks. Support your answers with well-labelled diagrams wherever necessary.

1. (a) List the different types of carp hatcheries. Describe characteristics and structure of any two of these hatcheries. 12
- (b) What are the distinguishing morphological characteristics of mature male and female carps ? 8
2. (a) Discuss any two bacterial and any two viral diseases of finfishes. Write a note on the strategy of disease prevention and any two fish disinfectants that can be used. 10+4

- (b) What are the constraints due to which catfish culture in our country remains unexploited ? How can *C. batrachus* be bred under simulated conditions ? 4+2
3. Discuss the importance and sources of various components of a balanced diet for fishes. What are the deficiency diseases caused by inadequate amounts of vitamin A and vitamin E in fishes ? 2+14+4
4. (a) Discuss the management of ponds for the culture of the giant freshwater prawn. 10
- (b) Describe the parameters and processes involved in artificial propagation of schizothoracids. 10
5. (a) Discuss the pond requirements for the culture of carps. What are their feeding habits ? 3+2
- (b) Describe the various basic steps in the process of freshwater pearl culture. 15
6. (a) What is the main principle and basic processes of the ecosystem of integrated fish farming ? 3

- (b) Discuss how energy enters and flows in a semi-fish culture system. How is semi-fish culture carried out? 4+5
- (c) What are the requirements for a successful trout culture? How can the male and female of Brown trout be distinguished from one another? 6+2

7. Write short notes on any **four** of the following: 4×5=20

- (a) Aquatic Insects and their Control
- (b) Sewage-fed Fish Culture
- (c) Biomineralisation of Pearl
- (d) Ornamental Fishes
- (e) Freshwater Prawn Diseases
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