

DIPLOMA IN AQUACULTURE (DAQ)

Term-End Examination

June, 2016

00266

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) Describe the morphological (phenotypic) characters, food and feeding habits and breeding of any one Indian major carp. 10
- (b) Discuss the role of pituitary hormones in induced breeding of carps. 10

2. (a) List the important aquatic weeds in fishery ponds and briefly describe the methods of controlling them. 10
- (b) Why cannot raw sewage be directly used in aquaculture ? List the processes involved in the treatment of sewage. 10

3. (a) Give the scientific names and distinguishing features of the following fishes : 10
- (i) A small catfish
 - (ii) A large catfish
 - (iii) A murrel
 - (iv) The climbing perch
- (b) Give a brief account of different culture systems for air breathing catfishes. 10
4. (a) Differentiate between male and female giant freshwater prawn, *Macrobrachium rosenbergii*. Draw diagrams of male and female reproductive systems of *Macrobrachium*, the giant freshwater prawn. 10
- (b) What are the different components of a prawn hatchery complex ? Briefly describe the rearing of prawn larva. 10
5. (a) What is a pearl ? Name the three different types of pearls and differentiate between them. Also show the basic steps involved in freshwater pearl culture operations in the form of a flow chart. 10
- (b) Name any two diseases in freshwater fishes caused by parasitic protozoa. State their causative organisms, symptoms and preventive measures. 10

6. (a) What is redd ? Describe the spawning behaviour of trouts in their natural habitats. 10
- (b) List the various categories of zooplankton as live feed organisms in aquaculture. What are the advantages of using microalgae as live feed? 10
7. Write short notes on any *two* of the following : 2×10=20
- (a) Integrated Rice-Fish System
- (b) Applications of *Spirulina*
- (c) Vitamin Deficiency Diseases in Fishes
- (d) Hapa Hatchery
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