

DIPLOMA IN AQUACULTURE (DAQ)

Term-End Examination

June, 2011

01343

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. How would you design, construct and manage a hatchery for Indian carps. Discuss constraints in the successful run of commercial carp hatcheries. 20
2. (a) Explain the principle of integrated fish farming. List types of fish-crop systems and describe pig-fish system with special reference to pig-cum-fish farming in India. 10
- (b) Discuss the problems and recommendations associated with poultry and fish system. 5
- (c) List the fish toxicants used for the removal of unwanted fishes from Grow out culture system and describe any one of the toxicant in detail. 5

3. (a) Describe artificial methods of breeding of mahseers. 10
- (b) What is line feed ? Discuss the importance of "living food" organisms in aquaculture. 10
4. (a) Why is Singhi considered a suitable candidate species for aquaculture ? 5
- (b) Describe various methods of breeding and seed production of Catfishes. 15
5. (a) Differentiate between male and female giant fresh water prawn *Macrobrachium rosenbergii*. 5
- (b) Describe the different components of main hatchery complex of fresh water prawn culture and discuss larval culture operations also. 15
6. (a) What is a pearl ? Draw diagrams of different types of pearls. 5
- (b) List the basic steps involved in the fresh water pearl culture operation and describe the surgical procedure involved in implantation of pearl. 15

7. List the types of diseases caused by parasites and fungi in hatchery and grow out systems of finfish. Discuss the strategies, prevention and treatment of the diseases in finfish. **20**
8. Write short notes on *any four* of the following : **20**
- (a) Importance of protein in fish nutrition
 - (b) Eradication of predatory fishes
 - (c) Hypophysation technique
 - (d) Azolla cultivation and its application in fish farming
 - (e) Courtship behaviour of *Clarias*
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