

DIPLOMA IN AQUACULTURE (DAQ)**Term-End Examination****December, 2015****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 requirements of a hatchery. Explain how efficient operation of a crop hatchery depends on these requirements. 10
- (b) How are aquatic weeds and weed fishes controlled or eradicated from carp ponds ? 5+5
2. What are the basic processes of the ecosystem of integrated fish farming ? Describe in detail any one example of integrated fish farming. 20
3. (a) What is a live feed culture ? State its importance in aquaculture. 10
- (b) List any five important living food organisms in aquaculture of fish. Describe how any one of these live foods is cultured. 10

4. (a) Explain with an example the methods of natural breeding and induced breeding in catfish. 10
- (b) What are the constraints for catfish culture in spite of its great demand ? 10
5. (a) How are prawn larvae reared for fresh water prawn culture ? 5
- (b) List the basic steps involved in fresh water prawn culture operations. Highlight the surgical method of implantation of live graft pieces from donor mussel into recipient mussel. 15
6. Write short notes on any **two** of the following : $2 \times 10 = 20$
- (a) Biology of Anabantids
- (b) Trematode infestation in fish
- (c) Duck fish system
- (d) Sexual dimorphism in trouts
7. Write a short essay on diseases caused by deficiency of macronutrients and micronutrients in fresh water fish under culture. 20

8. (a) What is a 'breeding hapa' ? How is it different from 'hatching hapa' and 'floating hapa hatchery' ?

15

(b) Give the scientific names of two fresh water prawns used in shell fish culture in India. State any three distinguishing features of male and female giant fresh water prawn.

5