

**M.Sc. 1st Semester Examination, 2012**

**AQUACULTURE MANAGEMENT & TECH.**

*( Taxonomy and Biology of Fin Fish and Shell Fishes )*

PAPER— AMT-103

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

- I. Answer any *four* of the following : 2 × 4
- (a) Write in brief on fossil fishes. 2
- (b) Why Berg (1940) classification of fishes is considered as most accurate ? 2
- (c) Point out the type of population fluctuation. 2
- (d) Write the name of four commercially important cephalopods from Indian water. 2

*( Turn Over )*

- (e) Write a short notes on food and feeding habits of juvenile and adult prawn. 2
- (f) Enlist the name of primary producer and top predators in a marine ecosystem. 2
- (g) Write short notes on innate behaviour. 2
- (h) What do you mean by carrying capacity of a lake? 2
2. Answer any *four* of the following : 4 × 4
- (a) Write down different types of taxonomic characters used for classifying fish. 4
- (b) Briefly discuss the role of melatonin in the regulation of Biorhythm. 4
- (c) Write a note on circadian rhythm in fish. 4
- (d) Give a brief account on the status and prospects of Chank fishery in India. 4
- (e) What is the behavioural response of fish in response to reduced dissolved oxygen? 4
- (f) Explain the source-sink model of population structure. 4

(g) Write the process of age determination of fishes. 4

(h) What is a stimulus ? Write down the types of behaviour observed in animal. 1 + 3

3. Answer any *two* of the following : 8 × 2

(a) Classify the class teleostomi with ten important orders with examples. 8

(b) Illustrate the method of estimation of fish population in lentic and lotic water bodies. 4 + 4

(c) Give an account on migration in fish. Briefly discuss about the effect of dams on fish migration. Add a note on fish pass. 4 + 2 + 2

(d) Briefly discuss about the status of crustacean fishery in India. State the possible management options to check its decline trend of production. 5 + 3