

The Open University of Sri Lanka
 Bachelor of Science Degree Programme
 Final Examination : 2011/2012 – Level 5
 Course Code : ZLU 3181
 Course title : Fish Biology and Fishery management
 Duration : Two hours



Date : 05. 12. 2012

Time : 1.30 p.m – 3.30 p.m

Answer any **four (04)** questions

Wherever necessary illustrate your answers with clearly labeled diagrams

1. Write an account of the evolutionary process of fish.
2. Describe marine pelagic fishery in west coast of Sri Lanka.
3. (a) . Explain why respiratory system in bony fishes is more efficient than that of cartilaginous fishes.
 (b). Briefly describe how fishes have adapted for aerial respiration.
4. “Different feeding adaptations of fish ensure their high survival ” Comment on this statement.
5. (a) What is meant by total mortality ?
 (b) What are the factors that influence the mortality of fish .
 (c) Total mortality coefficient and fishing effort data for a population of *Rastrelliger kanaguarta* in the west coast of Sri Lanka are given below.

Effort (No. of boats / Day)	Total mortality Coefficient
05	.20
13	.25
20	.37
26	.39
31	.41
38	.44
45	.47
60	.52

Calculate the catchability coefficient and natural mortality coefficient of this fish population.

6. Write short notes on any **two (02)** of the following.
 - (a) Ornamental fish Industry in Sri Lanka.
 - (b) Osmoregulation of fish
 - (c) Scale derivatives in fish population
 - (d) Living jawless fishes.