

The Open University of Sri Lanka
 Bachelor of Science Degree Programme
 Final Examination : 2015/2016 – Level 5



Course Code : ZLU 3181
 Course title : Fish Biology and Fishery management
 Duration : Two hours (2hrs)

Date : 23. 01. 2017

Time : 1.30 pm - 3.30 pm

Answer any four (04) questions.

Wherever necessary illustrate your answers with clearly labeled diagrams

1.(a) Describe the fishing methods that are used in the brackish water fishery in Sri Lanka.

(b) Briefly explain how overexploitation of above fisheries could be controlled.

2."Morphological features of fishes determine their different modes of life". Comment on this statement.

3. One of the undergraduate student wants to study food and feeding habits of the fish species, *Rasbora daniconius* in Kanneliya stream for his/ her research project. Explain the methods that he/she should use for this study.

4. Explain the methods that could be used in the identification of fish stocks.

5. (a) Briefly explain the mark and recapture method used to estimate the population size of fish.

(b) The catch and effort data for cat fishes (*Tachysurus* spp.) in Negombo lagoon as follows;

Fishing effort (No. of hours)	Total catch in numbers
4	20
2	8
3	9
1.5	3
1	1

Estimate the initial population size using the Leslie method.

6. Write short notes on any two (02) of the following.

- (a) Adaptation of fish for aerial respiration .
- (b) Yield models
- (c) Factors that affect the growth of fish
- (d) Lung fishes