

The Open University of Sri Lanka
Bachelor of Science Degree Programme
Final Examination : 2014/2015 – Level 5
Course Code : ZLU3181
Course title : Fish Biology and Fishery management
Duration : Two hours



Date : 2015. 11. 05

Time : 1.30 p.m - 3.30 p.m

Answer any **four (04)** questions.

Wherever necessary illustrate your answers with clearly labeled diagrams

1. (a) Using suitable examples describe how sexually mature fish could be identified using their external morphology.
 (b) "Fish show parental care for the survival of their offspring" . Comment on this statement.
2. Write an account on fisheries of small pelagics in the Western coastal waters of Sri Lanka.
3. Explain how teleosts maintain their osmotic balance .
4. (a) Discuss how environmental parameters affect fish yield.
 (b) The catch and effort data of the *Eutroplus suratensis* in a small reservoir for five fishing months are as follows.

Month	Fishing Effort (No. of fishing hours)	Total catch in Numbers
January	05	250
February	10	400
March	15	450
April	20	400
May	25	125

Using Schaefer's model , calculate the optimum effort and maximum sustainable yield of this fishery.

5. Suppose you are a Director of the Inland fisheries sector in the Fisheries Department and you have been asked to develop a plan to improve the habitat quality of Inland reservoirs of Sri Lanka for fish life.

Discuss the observations that should be taken from water bodies for the development of this plan.

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

- (a) Exotic fishes in Sri Lanka.
- (b) Feeding adaptations in fish .
- (c) Catch and effort data for the estimation of fish population size.
- (d) Sarcopterygian fishes.