The Open University of Sri Lanka
Bachelor of Science Degree Programme

Final Examination : 2016/2017 – Level 5
Course Code : ZLU 3181
Course title : Fish Biology and Fishery management
Duration : Two hours (2hrs)

Date : 19.01.2018   Time: 2.00 pm- 4.00 pm

Answer any **four (04)** questions.
Wherever necessary illustrate your answers with clearly labeled diagrams

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1. Discuss the different types of marine fishing methods used in the coastal and offshore fisheries of Sri Lanka.

2. "Air bladder of teleostei contributes to their successful living" Comment on this statement.

3. Discuss the possible methods that could be used to improve habitat conditions for fish in small reservoirs in Sri Lanka.

4. Explain the methods that could be used to estimate the fish population size.

5. (a) State the Von – Bertalanffy growth equation?

   (b) What are the factors that affect the growth of fish?

   (c) The mean length of a certain fish population in coastal marine waters in Sri Lanka of seven consecutive age groups are given below,

Age group	Mean total length (cm)
1	20
2	40
3	60
4	75
5	90
6	110
7	120

   (i)   Calculate the asymptotic length ($L\infty$) and growth coefficient (k) of this fish population

   (ii)   If this population was subjected to trawl fishing, with a net of 5 cm mesh size and selection factor is 15, calculated the **Lc** value .

   P.T.O

6. Write short notes on any two (02) of the following.
  (a) Surplus production model
  (b) Adaptations of fishes for arial respiration
  (c) Management of fishery resources
  (d) Exitnct fish groups