00186

The Open University of Sri Lanka
Faculty of Natural Sciences
B.Sc/ B. Ed Degree Programme

Department	: Zoology
Level	: Level- 5
Name of the Examination	: Final Examination
Course Code and Title	**:ZYU5301- Fish biology & Fishery management**
Academic Year	: 2024/2025
Date	: 2024.12. 08
Time	: 1.30pm - 3.30 pm
Duration	:Two hours (02hrs)
Index number	:

General Instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists of **06 questions in 02 pages**.
3. Answer any **04** questions only. All questions carry equal marks.
4. Answer for each question should commence from a new page.
5. Draw fully labelled diagrams where necessary
5. Relevant log tables are provided where necessary.
6. Having any unauthorized documents/ mobile phones in your possession is a punishable offense.
7. Use blue or black ink to answer the questions.
8. Circle the number of the questions you answered in the front cover of your answer script.
9. Clearly state your index number in your answer script

Answer any **four (04)** questions

Wherever necessary illustrate your answers with clearly labelled diagrams.

1.Examine the diverse morphological features of bony fishes and analyse how these adaptations enable them to thrive in a wide range of aquatic environments. (*100 marks*)

2. Discuss how various reproductive adaptations of fish contribute to successful propagation of their future generations. *(100 marks)*

3. Discuss how consumption of fish plays a significant role in human health. *(100 marks)*

4. Describe in what ways the habitat conditions of a small reservoir in a rural area could be enhanced to support the development of an inland fisheries industry . *(100 marks)*

5. (a) What are the factors that influence the mortality of fish ? *(20 marks)*

(b)Total mortality coefficient and fishing effort data for a population of *Eutroplus suratensis* in the Negombo Lagoon are given below.

Fishing effort (No. of boats /day)	Total mortality Coefficient
05	0.25
12	0.29
15	0.35
20	0.39
26	0.40
32	0.45
38	0.50
40	0.52

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

(80 marks)

6. Write short notes any **two (02)** of the following. *(50 marks for each)*

(a) Maze gears in brackish water fishery.

(b) Living Jawless fishes

(c) Factors that affect the growth of fish

(d) Scale derivatives of fish .

****