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University of Ruhuna- Faculty of Technology

Bachelor of Biosystems Technology Honours
Level 4 (Semester I) Examination, June / July 2023
Academic year 2021 / 2022

Course Unit: BST 4132 Fish Production Systems **Duration: 1 hour and 30 minutes**

Student No: .....

Please read the following instructions carefully before answering the questions.

- Answer **All** questions in **PART 1 in the given space.**
- Answer Only **Two (2)** questions in **PART 2**.
- Use separate book for answering the questions in **PART 2**.
- Each question should be started with a new page.
- Calculators and mobile phones are not allowed

PART 1 - Answer All questions

Question 1 (100 Marks)

I. Point out **five (04)** major factors to be considered when constructing the watershed ponds **(20 Marks).**

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II. Classify the ponds based on the method of construction **(15 Marks).**

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III. Differentiate the pond types mentioned in part II **(30 Marks).**

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IV. List out five (05) factors that determine the size of a particular pond **(20 marks).**

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V. Mention three (03) basic qualities of a pond dyke **(15 Marks).**

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Question 2 (100 Marks)

I. Write down **three (03)** major qualities of water particularly important in aquaculture **(15 Marks).**

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II. Mention how the qualities mentioned **in part I** affect for the aquaculture **(30 Marks).**

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III. Indicate **five (05)** factors that determine the Biological Oxygen Demand (BOD) of aquatic organisms **(20 Marks).**

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IV. Briefly describe the diurnal variation of pH in a fishpond **(20 Marks).**

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V. List out **three (03)** reasons for fish having a comparatively lower dietary energy requirement **(15 Marks).**

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PART 2 – Answer two (02) questions only

Question 1 (100 Marks)

"Following proper construction criteria is a crucial factor in pond construction". Justify this statement by describing the main steps of fishpond construction.

Question 2 (100 Marks)

Write an account on the qualities that determine the suitability of species for aquaculture.

Question 3 (100 Marks)

Write down short notes on followings

- **I.** Environmental factors governing reproduction of the fish **(25 Marks)**
- II. Intensive Vs. extensive aquaculture **(25 Marks)**
- III. Suitability of soil in aquaculture **(25 Marks)**
- IV. History of aquaculture **(25 Marks)**

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