

UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
Academic Year 2022/2023

Bachelor of Science Honors in Fisheries and Marine Sciences Degree

Level IV, Semester-I Examination -April/May 2024

AQU 4121 – Aquaculture Technology – Equipment & machinery

Time: 1 ¼ hours

Answer all questions in Part I and only one (01) question from Part II.

Part I

1. Pipes are a more effective solution for transporting water in aquaculture facilities.

a. Name three types of thermoplastic materials used in making pipes.

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(06 marks)

b. Mention methods used in connecting thermoplastic pipes.

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(04 marks)

2. List the different types of valves used in water transportation. Give one unique application for each.

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4. What is a prot

(10 marks)

3. Pumps are mechanical devices commonly used in aquaculture systems to lift water from one level to another and for aeration purposes via circulating the water inside the ponds.

a. List out the different types of pumps used in aquaculture.

(08 marks)

b. Which types of above pumps are used in transporting fish? Explain their working principles.

(10 marks)

1. Givin
system

2. Wri

4. What is a protein skimmer? Describe its working principle.

(10 marks)

(12 marks)

Part II

(Answer only one question)

1. Giving suitable examples, discuss the different types of filtration devices used in aquaculture systems. (50 marks)
2. Write short accounts on any two (02) of the following. (50 marks)
 - a. Automatic feeders.
 - b. Application of artificial intelligence (AI) in aquaculture farms.
 - c. Diffuse aerators.

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