

**UNIVERSITY OF RUHUNA**  
**BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE**  
**Level IV Semester I – 2017 July / August**

**AQU 4123 - Aquaculture Management**

**Time: 02 hours**

Answer **any Four (04)** questions

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01. “Various forms of Nitrogen in water can affect water quality and fish production in aquaculture ponds.” Discuss this statement. (50 marks)
02. “Use of chemicals in aquaculture systems in open water could adversely affect the environment.” Discuss. (50 marks)
03. Write short notes on **any two** of the following. (25 marks each)
- a) Importance of algal blooms in fish ponds
  - b) Gas transfer equation and the factors which are important in deciding the rate of oxygen transfer between air and water
  - c) Factors important in biofilter design and management
  - d) Importance of bioflocs in aquaculture
04. a) “Autotrophs and heterotrophs are important in maintaining water quality in a biofilter system.” Explain. (20 marks)
- b) Describe the importance of “startup time” in biofilter operations and the methods to seed a biofilter in an aquarium. (30 marks)

05. Write an account on the methods that can be used to control the aquatic weeds in fish ponds. (50 marks)
06. a) Briefly describe biochemical changes and stresses that would occur in transported fish. (15 marks)
- b) Describe the structures that can be used to hold live fish at the fishing ground. (15 marks)
- c) Briefly explain the packing and transportation of live fish by different ways. (20 marks)

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