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FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Bachelor of Science Honors in Fisheries and Marine Sciences Degree

Level III, Semester-II Examination -2023/2024

AQU 3232: Aquaculture Management

Time: 1 hour and 30 minutes

Answer all questions in part I and any Two (02) from part II

PART II

Select one question from each section

Section A

01. Compare ammonia, nitrite, and dissolved oxygen levels in fishponds by: (a) identifying their primary sources, (b) listing five negative impacts of each on fish health, and (c) outlining five effective treatment and prevention strategies for each parameter. (50 marks)
02. "Although the use of chemicals is unavoidable in aquaculture, they have several consequences on the environment, workers, bacterial communities, and cultured organisms". Justify this statement. (50 marks)

Section B

03. 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 bio filter in an aquarium. (30 marks)
04. Answer following:
 - a) Define the term "gas transfer equation", and identify the key factors that influence the rate of oxygen transfer between air to water, and discuss why each factor is significant. (35 marks)
 - b) Define "biofloc" and , briefly describe the advantages of having biofloc in an aquaculture system. (15 marks)

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