



UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
Academic Year 2023/2024

Bachelor of Science Honours in Fisheries and Marine Sciences Degree

Level III Semester I Examinations –October/November 2024

3132: Methods for Aquaculture I (for tropical fin fish species) Time: 1 hour & 30 minutes

Answer any three (03) questions

- 1) a) Explain the aquaculture systems known as polyculture.
(20 marks)
- b) “All the ecological niches of pond ecosystem are effectively utilized by different species of carps in polyculture systems”. Justify the given statement by providing suitable examples.
(80 marks)
- 2) a) Construct an essay on the importance of Integrated Agri -Aquaculture Systems (IAAS) as a sustainable alternative in food production for human population. Provide examples wherever necessary.
(75 marks)
- b) Summarize the importance of stock enhancement of carps in culture-based fisheries.
(25 marks)
- 3) a)
- i. Briefly discuss “Main biosecurity concerns in ornamental fish culture”.
(20 marks)
- ii. Write a short account on “Aquaculture of live rock used in tropical ornamental fish farming”.
(30 marks)

b)

- i. Summarize the fate of fertilizer when added to a fishpond.

(20 marks)

- ii. "Application of fertilizers to fishponds should be avoided at some instances, if the farmer needs to get the maximum benefit of pond fertilizing,". Defend the given statement with the aid of appropriate facts.

(30 marks)

4)

- a) Write whether the following statements are TRUE or FALSE. Justify your answers.

- Pen-cum-pond system is an intensive method of Tilapia culture
- High water turbidity in culture system can have negative effect on growth of Tilapia
- Oreochromis niloticus* is an euryhaline species
- There are four different types of organic fertilizers depending on the presence of carbohydrate matter
- Overcrowding is an approach to control reproduction of Tilapia

(25 marks)

- b) "Some approaches used to culture tilapia cause minimum stress on the environment while enhancing the diversity". Justify this statement using appropriate examples.

(75 marks)

- 5) Write short notes on **any four (04)** of the following

- Mono-sex culture of tilapia
- Advantages of pond liming
- Effect of temperature and dissolved oxygen on the growth of Tilapia
- Integrated Multi Trophic Aquaculture system used in carp farming
- Existing problems and constraints in carp farming

(100 marks)

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