

FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY

Academic Year 2022/2023

Bachelor of Science Honors in Fisheries and Marine Sciences Degree

Level III Semester II-Examination - October/November 2024

AQU 3212: Aquaculture III - Propagation

Time: 1 hour and 30 minutes

Answer any three (03) questions.

1. (a) Briefly describe the key characteristics that a seed supply should possess to ensure the successful aquaculture of a particular species. (20 marks)
(b) Elucidate the three main approaches used for propagation of cultivated fish, providing suitable examples for each. (80 marks)
2. (a) Why is it important to manipulate the photoperiod in induced spawning of rainbow trout? (25 marks)
(b) Summarise the major factors that should be considered when selecting the brooders for fin fish aquaculture. (75 marks)
3. (a) Briefly describe the three main methods used for Tilapia breeding. (50 marks)
(b) Compose an essay on various methods that can be employed for mass production of sea bass fry. (50 marks)
4. (a) Provide details on an appropriate method for induced spawning in oviparous bivalves within a hatchery setting. (50 marks)

(b) Describe a suitable hatching system for berried *Macrobrachium rosenbergii* females accompanied by an appropriate diagram. (50 marks)

5. Write short accounts on the following.

(a) Food availability is the major factor governing the success of propagation of finfish species

(b) Stages in ovarian development of shrimp.

(c) Preparing a tank for egg buriers.

(d) Methods for prevention of cannibalism in fish breeding.

(100 marks)

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(b)

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