

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Agricultural and Plantation Engineering



0031

Study Programme : Bachelor of Industrial Studies Honours (Agriculture)
Name of the Examination : Final Examination
Course Code and Title : AGI5572 Fisheries and Aquaculture
Academic Year : 2024/2025
Date : 8th February 2026
Time : 13:30 -16:30 hr
Duration : 03 Hours

Index No. :

Examination Type: Closed Book Test

General Instructions

1. Read all instructions carefully before answering the questions.
2. Answers should be in clear handwriting.
3. Do not use red colour pen.
4. This question paper consists of two (02) sections.

Section 1

- Consists of 15 questions in six (6) pages.
- Answer all questions.
- All questions carry equal marks.
- Write answers only in the space provided.
- Please do not remove the question paper from the examination hall.
- You may spend one (01) hour to answer this section.

Section 11

- Contain six (06) questions.
- Answer any four (04) questions.
- You may spend two (02) hours to answer this section.
- All questions carry equal marks.
- Answer for each question should commence from a new page.

SECTION I: Answer all questions. Use the space given under each question.

1. List two (02) advantages of fish farming.

i

ii

2. In 1951, *Oreochromis mossambicus* (Mosambicus tilapia) was introduced to Sri Lanka. Briefly explain the specific qualities identified in *Oreochromis mossambicus* to make it suitable for Sri Lankan Reservoirs.

3. Mark the correct statements as "✓" and incorrect as "X" regarding freshwater fisheries

i. *Oreochromis niloticus* was introduced for the efficient use of different layers of the reservoirs.

☐

ii. *Tilapia rendalli* was introduced to Sri Lanka is a macrophyte

☐

iii. *Oreochromis niloticus* and *Tilapia rendalli* are mouth brooders

☐

iv. *Oreochromis niloticus* and *Tilapia rendalli* are not mouth brooders

☐

v. *Oreochromis niloticus* and *Tilapia rendalli* are substrate brooders

☐

4. List four (04) functions of fish fins.

i

ii

iii

iv

5. Name four (04) different pond fish cultures categorized according to the nature of water and farming methods.

i

ii

iii

iv

6. Briefly explain the steps to be taken to upgrade the ornamental fish industry in Sri Lanka

7. Mark the correct statements as "✓" and incorrect as "X". Shrimp life cycle,

i. has three (03) larval stages

☐

ii. Nauplii is the first larval stage of shrimp.

☐

iii. Myses is the final larval stage

☐

iv. has fifteen (15) postlarvae stages

☐

iv in postlarvae stages walking and swimming legs have developed and looks like a miniature shrimp

☐

8. Briefly explain the primary factors affecting on site selection of mollusc culture

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9. How do you obtain a brood stock fish for spawning?

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10. Explain the characteristics of brood stock (males and females) ready to spawn.

11. List five (05) primary objectives of fish diet formulation.

i

ii

iii

iv

v

12. Write two (02) hygienic methods that can be followed to avoid fish diseases on a fish farm.

i

ii

13. Briefly explain the importance of maintaining aquatic plants in fish production systems.

14. Name two (02) aquatic plants you identified in aquatic environments in Sri Lanka.

i

ii

15. Briefly explain the problems occurred due to excessive growth of the aquatic plants in reservoirs.

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SECTION 2: Answer any four (04) questions.

1. Explain the requirements, maintenance practices, advantages and disadvantages of duck fish integrated farming.
2. Discuss the important factors to be considered when constructing and managing the freshwater fishponds.
3. Discuss the management practices that make it possible to apply shrimp hatcheries to obtain the highest productivity.
4. Explain the effects of following factors on successful shrimp production.
 - a. Quality and/or variety of shrimp feeds
 - b. Water aeration in shrimp ponds
5. Write an essay on fish feeding with natural food in fish industries.
6. Discuss the importances of correct fish diet formulation.