



The Open University of Sri Lanka
Faculty of Engineering Technology
Bachelor of Industrial Studies (Agriculture)

Final Examination- 2009

AEI 5230 Fisheries and Aquaculture



Date : 20-03-2009
Time : 1400-1700 hours

SECTION II

1. a) What are the common different ornamental fish species available in Sri Lankan market? Give the common and scientific name of each species.
b) Explain the current draw backs in ornamental fish industry in Sri Lanka and suggest the improvements to upgrade the industry.
2. a) Explain the reasons for low contribution of investors to ornamental fish industry in Sri Lanka.
b) Classify the fish in a reservoir based on the feeding type.
c) Write an account for need of scientific management reservoir fisheries industry in Sri Lanka.
3. a) Explain the farmer concerns about feeding during the hatchery stage of shrimp farming.
b) Classify the shrimp farming systems in Sri Lanka according to the stocking densities. Explain each farming system mentioning most characteristic features.
4. a) "In most animal diets, protein is the most expensive portion and is usually the first nutrient that is computed in diet formulation. The energy level of the diet is then adjusted to the desired level by addition of high energy supplements) which are less expensive than protein supplements. The square method is an easy way to determine the proper dietary proportions of high and low protein feedstuffs to add to a feed to meet the dietary requirement of the animal to be fed."

A ration is developed for a 500g heifer calf having a desired gain of 1500 g /day. Her daily requirements are as follows,

12.1 g dry matter intake
10.3% crude protein

68.5% TDN

The feed stuffs to be used in developing the balanced ration are listed below,

Feedstuff	Dry matter (%)	Total digestible nutrients (%)	Crude Protein (%)
Shrimp meal	92	50	6
Corn	88	75	11
Cotton seed meal	90	65	4

- a) Determine the crude protein concentration in the Shrimp meal and Corn mixture.
 - b) Determine whether crude protein is adequate.
5. a) Why use supplementary feeding in fish management?
b) What are the factors to consider when selecting supplementary feeds?
c) Explain when and where to apply the fish feeds to the ponds.
6. Write short notes on any three (03) of following,
- a) Role of aquatic plants in nature.
 - b) Nutritional value of fish.
 - c) Factors affecting site selecting of mussel culturing.
 - d) Signs and epidemiology of Baculoviral midgut gland necrosis disease of shrimp and prawns.