



**RAJARATA UNIVERSITY OF SRI LANKA**  
**FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Applied Sciences**  
**Third Year - Semester I Examination –November/December 2016**

**ZOO 3204 - FISHERIES AND AQUACULTURE**

**Time: Two (02) hours**

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Answer any **four (04)** questions.

Illustrate your answers with suitable diagrams where appropriate.

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1. The production of fish fingerlings from the government sector is insufficient to meet the demand of fisheries societies in the North Central Province. Therefore, the North Central Provincial Council decided to purchase fingerlings from private fish farmers. Fisheries extension officers have instructed the private aquaculture farmers to construct the mud ponds to grow fingerlings and they promised to provide fish post larvae from the government fish breeding stations at a concession rate.
  - a) What are the main factors that collectively contribute to make a good site for pond construction for table-fish production? **(02 marks)**
  - b) Briefly describe the above mentioned factors. **(06 marks)**
  - c) Explain all the important steps that should be followed in preparation of a newly constructed mud pond for stocking of fish. **(17 marks)**

2. Succinctly explain the following.

- a) Fisheries activities that are carried out in minor perennial tanks. (15 marks)
- b) Contribution of fish production in minor perennial tanks enhances,
  - i) the livelihood of fisher families and
  - ii) fulfill the protein requirement of rural communities. (10marks)

3. "Fish entrapment devices are widely used by traditional fishers in the Jaffna lagoon."

- a) What is meant by "fish entrapment devices"? (05 marks)
- b) Compare the basic structure, mode of operation and target species associated with different types of fish entrapment devices. (20 marks)

4. a) Explain the relationship between alkalinity and pH in earthen fish ponds. (09 marks)

- b) What are the tolerance limits and the effects of following parameters on aquaculture species? (16 marks)
  - i) Dissolved Oxygen
  - ii) Ammonia

5. Write short notes on any **four (04)** of the following. (25 marks each)

- a) impacts of bottom trawling
- b) sea cucumber fishery in Sri Lanka
- c) trammel net
- d) advantages of cage culture
- e) village seasonal tanks

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