



RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Applied Biology  
Fourth year – Semester II Examination – April/May 2016

ZOO 4307 - ORNAMENTAL FISHERIES

Time: Three (03) hours

Answer six (06) questions including question No. 01.

1. A young entrepreneur intends to establish 20 marine aquaria each to hold 05 different types of marine invertebrates and 01 co-habiting marine fish species. Advise him on how to establish them, highlighting on the following steps.
  - a) Setting up of a marine aquarium
  - b) Selection of suitable invertebrate types
  - c) Selection of co-habiting fish species
2.
  - a) Discuss the different types of breeding strategies adopted in ornamental fish breeding.
  - b) Describe how **discus fishes** are bred, from the stages of selection of brooders to nurture of larval forms.
3.
  - a) What is meant by the term “biofiltration”?
  - b) Explain how to construct a biofiltration system and its mechanism of filtration with special reference to microorganisms.
  - d) Elucidate the advantages of biofiltration system.

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4.
    - a) A person needs to establish an ornamental fish farm to culture goldfish. He doesn't have a knowledge on goldfish varieties. Educate him on this regard.
    - b) State the distinguishing feature of tetras which is useful in the differentiation of them from other ornamental fish.
    - c) Give characteristic features of **four (04)** popular tetra varieties used in ornamental fish industry.
  5.
    - a) How would a farmer differentiate between male and female freshwater angelfishes?
    - b) "Generally a farmer cannot select a breeding pair of angelfish as he wants." Comment on this statement and elucidate the procedure used in angelfish breeding.
  6.
    - a) When an importer receives live fish boxes after 15 hours of transportation, how would he examine the condition of fish in the boxes and reduce the stress of fish?
    - b) "Shipping additives will help to maintain the fish health during transportation." Critically appraise this statement, with suitable examples.
  7. Write short notes on the following.
    - a) Different types of packing bags for ornamental fish
    - b) Problems faced in the ornamental fisheries sector in Sri Lanka
    - c) Characteristic features of marine angelfish and butterflyfish
    - d) Importance of aquatic plants in aquaria