



RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES

B.Sc. in Applied Sciences  
Second Year - Semester I Examination – June 2022

ZOO 2204 - FISH BIOLOGY

Time: Two (02) hours

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Answer ALL questions.

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1. a) Name the primary forces that act on the body of a fish in water and briefly explain how those forces affect its locomotion. (20 marks)
- b) "Fish adopt different strategies to overcome the problems that they face during swimming in a viscous medium". Discuss this statement using appropriate examples. (80 marks)
2. a) Compare the structure of the gills of lamprey, shark and tilapia. (30 marks)
- b) Describe the blood circulation taking place in the gills of a teleost fish with special reference to oxygenation of blood. (40 marks)
- c) "Caudal pump is important for the venous blood return to the heart in a fish". Justify this statement with suitable examples. (30 marks)
3. a) Explain how the knowledge on external morphological characters of fish are used in sexing them. (40 marks)
- b) Discuss the different modes of reproduction seen in fish. (60 marks)
4. Write short notes on the following.
  - a) Importance of a buffered fixative in preservation of fish for taxonomic studies.
  - b) Role of TMAO in osmoregulation of sharks
  - c) Structure and function of suctorial mouth of pony fish
  - d) Light and dark vision of teleost fish(25 marks each)

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