



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

**B.Sc. (General) Degree in Applied Sciences  
Second year – Semester I Examination – April/May 2016**

**BIO 2211 - FISH BIOLOGY**

**Time: Two (02) hours**

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

**Illustrate your answers with labeled diagrams where appropriate.**

1. a) List the main anatomical and physiological adaptations shown by carnivorous fish for their mode of life.  
b) "Carnivorous fishes adopt different feeding behaviors towards their survival".  
With suitable examples justify this statement.
2. a) Describe the structure of a bony fish heart and explain how it differs from that of a cartilaginous fish.  
b) Illustrate the distribution of blood vessels in the abdominal and caudal regions of a bony fish.
3. a) Mention the factors that affect the obligatory osmotic exchange in fish.  
b) Briefly explain the osmoregulation mechanism in freshwater and marine bony fish.
4. a) What is diadromous migration in fishes?  
b) Briefly describe the above mentioned migratory types with appropriate examples.
5. Write short notes on any **four (04)** of the following.
  - a) Sexual dimorphism in fishes
  - b) Lateral line organs of fishes
  - c) Mechanisms of overcoming gravitational force during swimming
  - d) Bony fish gill and cartilaginous fish gill
  - e) Enzymatic digestion in the intestine of fish