

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level II Semester I Examination

July/August 2016

FAQ2113 - Fish Physiology and Biochemistry

Time: 02 hours

Answer **any four (04)** questions

1.
 - a. Briefly describe the structure of lateral line of fish. (10 marks)
 - b. How does fish identify water movements through the lateral line? (15 marks)
 - c. "Amphibious fish has well adapted for the aerial vision." Explain this statement providing suitable examples (25 marks)

2. Write short accounts on **any three** of the following.
 - i. The Fahareus effect
 - ii. Secondary circulation in fish
 - iii. Ram ventilation
 - iv. Non-swimming locomotion in fishes
 - v. Mechanism of hydrostatic equilibrium in fish
 - vi. Digestion of carbohydrates within fish digestive system(50 marks)

3. Write brief accounts on different methods of food processing in digestive track of fish. (50 marks)

4. Describe the mechanisms of ammonia excretion in fish. (50 marks)

5. Briefly descriptions of the following.
 - (A) Areal respiration in fish (25 marks)
 - (B) Swimming gaits in fish (25 marks)

6.
 - (i) What are the endocrine organs that are responsible for secreting hormones that control the reproductive cycle in female fish (06 marks)
 - (ii) List the hormones secreted by each of the organs mentioned in (i) above (10 marks)
 - (iii) Briefly describe the neuroendocrine control of reproduction in fish (34 marks)