

UNIVERSITY OF RUHUNA

BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level II Semester I Examination August/September 2018

FAQ 2113 – Fish Physiology

Time: 02 hours

Answer **any four (04)** questions

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01. a. Briefly describe the structure of gills in fish. (20 marks)  
b. Giving suitable example, elaborate Special ventilatory mechanisms used in the aquatic animals. (30 marks)
02. Write short note **any three** on the following (50/3 marks for each part)  
a. Osmoconformers  
b. Primary lymphoid organs  
c. Mechanism of eliminating nitrogenous waste from the body of a fish  
d. Mechanisms involved in the activity of hormones  
e. Endocrine control of ecdysis (molting) in crustaceans
03. Write short notes on the following (25 marks each)  
a. Gastric secretions  
b. MPF (median and paired fin) locomotion of fish
04. Write an essay on “Functioning of sensory systems of fish” (50 marks)

05. (i) What are the components of cardio vascular system and their functions of fish?  
(10 marks)
- (ii) With the aid of suitable line diagram, briefly explain the primary blood circulation of fish (30 marks)
- (iii) Write a short description on cardiac cycle of fish (10 marks)
06. (i) What are the endocrine organs that play important roles in regulating the reproductive cycle? (05 marks)
- (ii) What are the hormones secreted by the organs mentioned above? (10 marks)
- (iii) Write a short account on the two-celled model used to describe the endocrine control of ovarian development in fish. (35 marks)
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