UNIVERSITY OF RUHUNA

BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level II, Semester I Examination

July/August 2017

FAQ 2113 – Fish Physiology and Biochemistry

Time: 02 hours

Answer **any four (04)** questions

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1. Write short accounts on the following
   i. Osmoregulatory mechanism present in freshwater teleost (25 marks)
   ii. Pathways of water movement across the gill epithelium of aquatic breathers (25 marks)

2. Write short notes on **any three (03)** of the following (50 marks)
   a) Cardiac cycle of teleost
   b) Functions of macrophages involved in immunity of fish
   c) Phagocytosis
   d) Ammonia excretion of fish
   e) Oxygen dissociation curve

3. (a) List the Hormones and neuroendocrine secretions involved in controlling the reproductive cycle in teleost fish. (10 marks)

   (b) Describe the function of each of them in successful completion of oocyte maturation and ovulation in oviparous fish. (40 marks)

4.
   i. What are the functions of chemoreceptive organs of fish? (05 marks)
   ii. Briefly describe the light and dark adaptations in teleost eye (20 marks)
   iii. Explain the importance of mechanoreception of fish to sustain life in aquatic environment (25 marks)

5. "Head region of fish is well adapted for their feeding habits" Justify this statement with suitable examples (50 marks)

6. Write short accounts on the following (25 marks each)

   i. Digestion and absorption of proteins
   ii. Anguilliform mode of swimming

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