## UNIVERSITY OF RUHUNA

## BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level IV - Semester I - Examination, September 2018 FAQ 4123 - Fish Pathology and Parasitology

Time - 02 hours

## Answer any four (04) questions

- 1. Briefly discuss any three (3) of the following
  - a) Columnaris disease in fish
  - b) Adaptive immunity system in fish
  - c) Functions of phagocytes
  - d) Stress and the General Adaptation Syndrome
  - e) The Inflammatory Response
- 2. (a) Define the term disease diagnosis
  - (b) List out diagnostic tools used in fish disease diagnosis
  - (c) Explain any two techniques for Immunological Diagnosis
- 3. (a) List five common viral diseases of shrimps
  - (b) A commercial shrimp farmer observed lethargic behavior, surface inhabitation and yellow heads among shrimps in his ponds. He is expecting the support from a pathologist to analyze the situation. As a pathologist how would you proceed the investigations based on the shrimp farmer's observations?
- 4. Write short accounts on the following
  - a). Organismal associations
  - b). Clinical signs of ectoparasitic diseases
  - c). Factors to be considered when treating fish with external treatments
- 5. Summarize the ways in which pathogen pathway to fish/fish farm could be intercepted
- 6. (a). Describe the methods adopted for application of external treatments to fish are affected by diseases
  - (b). Summarize husbandry factors contributing to outbreaks of diseases in fish farms