

**UNIVERSITY OF RUHUNA**  
**BACHELOR OF SCIENCE SPECIAL DEGREE LEVEL I (SEMESTER I)**  
**EXAMINATION - JULY 2016**

**SUBJECT : Zoology**

**Time: 02 hours**

**COURSE UNIT: ZOO 4034 - Ecosystem Structure and Function**

Answer **Question number 1** and **three other** questions only.

*Illegible handwriting would be penalized.*

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1. Answer **all parts**.

- (a). List the ecological and economical values of estuaries.
- (b). Write a brief description of surface water dominated wetland types found in Sri Lanka.
- (c). Briefly explain how tides affect the intertidal organism living in a rocky shore area.

**(45 minutes)**

**(40 marks)**

2. (a). Briefly explain the "River Continuum Concept".

- (b). Discuss the adaptations shown by invertebrates living among rock substrate for survival in water currents.

**(25 minutes)**

**(20 marks)**

3. Briefly discuss the main problems that emerge due to landfill operations and mangrove destruction in Sri Lanka and suggest management measures to overcome them.

**(25 minutes)**

**(20 marks)**

4. Explain how the interrelation among water density, temperature and salinity contribute to a layered ocean. Briefly discuss the significance of layered ocean to ocean productivity in different latitudes.

**(25 minutes)**

**(20 marks)**

5. Write an account on "Acid deposition and its impacts". Suggest measures to reduce acid deposition.

**(25 minutes)**

**(20 marks)**

6. Briefly describe how different types of disturbances on soil, affect the organisms living there.

**(25 minutes)**

**(20 marks)**

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