

# **KENYATTA UNIVERSITY**

### **UNIVERSITY EXAMINATIONS 2008/2009**

### INSTITUTE OF OPEN LEARNING

### EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SZL 409: ENVIRONMENTAL PHYSIOLOGY

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DATE: WEDNESDAY  $17^{TH}$  FEBRUARY 2010 TIME: 2.00 P.M. – 4.00 P.M.

# **INSTRUCTIONS**

Answer <u>ALL</u> Questions from Section A and any <u>ONE</u> Question in Section B.

Illustrate your answers with diagrams and give examples where appropriate.

## **SECTION A:**

- 1. Outline the importance of respiratory pigments
- 2. Outline the Glycolytic pathway.
- 3. Differentiate between the following terms:
  - a) Poikilothermic ectotherms and Homeothermic endotherms
  - b) Viviparity and Oviparity
- 4. Outline any five factors that lead to migration of animals.
- 5. "The nitrogenous product excreted is related to the environment in which an animal lives". Explain this statement.
- 6. Outline any five functions of blood.
- 7. Describe the structure of the nephron.
- 8. Outline the mechanisms of heat energy transfer.

### **SECTION B**

9. Describe the respiratory mechanisms employed by the diving vertebrates.

10. Discuss thermoregulation in reptiles.