



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTE OF OPEN LEARNING (IOL)

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SZL 409: ENVIRONMENTAL PHYSIOLOGY

DATE: Monday, 4th July, 2011

TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS:

Answer ALL questions in Section A and any ONE question in Section B. Illustrate your answers and give examples where appropriate.

SECTION A

Answer **ALL** questions (40 marks)

1. Explain the concept of cooperative binding.
2. Describe briefly the Glycolytic Pathway.
3. Differentiate between the following terms:
 - a) Biological Rhythms and Seasonality.
 - b) Hibernation and Aestivation.
4. Outline the reasons for animal migration.
5. “The nitrogenous product excreted is related to the environment in which an animal lives”. Explain this statement.
6. Explain the mechanisms of heat and energy transfer.
7. Explain the mechanisms of heat and energy transfer.
8. Describe the reactions involved in carbon dioxide (CO₂) transport.

SECTION B

Answer any **ONE** questions (30 marks)

9. Describe the survival mechanisms employed by mammals found in temperate habitats.
10. Describe the process of urine formation in mammals.