



KENYATTA UNIVERSITY
INSTITUTE OF OPEN LEARNING (IOL)
UNIVERSITY EXAMINATIONS 2007/2008
SPECIAL EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE

SZL 409: ENVIRONMENTAL PHYSIOLOGY

DATE: Thursday, 9th October, 2008

TIME: 1.00 p.m. – 3.00 p.m.

INSTRUCTIONS:

Answer **ALL** questions in Section A and any **ONE** question in Section B.

Within a Section all questions carry equal marks.

Illustrate your answers with diagrams and give examples where appropriate

Section A

Answer **ALL** questions (40 marks)

1. Explain briefly the factors that influence the oxygen dissociation curve.
2. State the feeding adaptations of sanguinivorous mammals.
3. Outline the morphological adaptations of endotherms to cold stress.
4. Describe the patterns of migration in diadromous fish.
5. Explain the factors that affect heart rate in vertebrates.
6. Outline the challenges faced by mammals during diving.

7. Explain the influence of lunar rhythms on feeding and reproduction in invertebrates.
8. Describe factors that influence the timing of the reproductive cycle in mammals.

Section B

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

9. Write an essay on osmoregulation in fresh water organisms.
10. Discuss the effects of altitude on gas exchange and circulation in birds and mammals.