



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE AND
BACHELOR OF EDUCATION
SZL 409: ENVIRONMENTAL PHYSIOLOGY

DATE: Monday 29th November, 2010

TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS

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

SECTION A - *Answer ALL questions (40 marks)*

1. Outline the induced-fit model of Haemoglobin-Oxygen binding.
2. Explain the osmoregulatory mechanisms adopted by the following animals:
 - a) Fresh-water fish
 - b) Sea turtle
3. Outline the factors that influence diapause.
4. Explain the role of angiotensinogen in salt regulation.
5. Outline any two factors that affect the Oxygen dissociation curve.
6. Differentiate between the following terms:
 - a) Poikilothermy and endothermy
 - b) Hibernation and Aestivation
7. Outline any five thermoregulatory mechanisms adopted by desert reptiles.
8. Briefly describe the term Biological Rhythm.

SECTION B - *Answer any ONE question (30 marks)*

9. (a) Describe ionic transfer across the lipid bilayer membranes.
(b) Discuss urine formation in mammals.
10. Write an essay as migration of animals.

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