



**KENYATTA UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2011/2012**  
**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**SZL 304: EVOLUTIONARY BIOLOGY**

**DATE:** Monday 2<sup>nd</sup> April, 2012

**TIME:** 4.30 p.m. – 6.30 p.m.

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**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 and give examples where appropriate.*

**SECTION A – Answer ALL questions (40 marks).**

1. Explain the interpretation of ontogenesis and
  - a) Cladogenesis
  - b) Explain the morphogenesis of mammals.
2. Describe briefly the evidence of evolution from chromosomal structure.
3. Outline briefly the structural difference between trees and animals.
4. Explain the interpretation of the terms:
  - (a) Polymorphism
  - (b) Mendelian population.
5. Outline in brief the advantages of bipedalism.
6. Discuss briefly the role of mutations in the living world.
7. Make a brief outline of the Pre Cambrian fossil record.
8. Describe briefly the origin of Homo sapiens from the Genetic Replacement hypothesis.

**SECTION B – Answer ONLY/ANY 1 question (30 marks).**

9. Discuss the theory of Continental Drift.
10. Write an essay on the evolution of human birth.

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