



KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2015/2016 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER
MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY

COURSE CODE: SZL 122

COURSE TITLE: VERTEBRATE ZOOLOGY


DATE: 12th May 2016

TIME: 2:00 – 4:00 p.m.

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over 
KIBUCO observes ZERO tolerance to examination cheating

1. a) Define each of the following terms: (3 marks)

- i. Species
- ii. Character
- iii. Comparative anatomy

b) State the difference between parallelism and convergence. (3 marks)

c) Briefly explain the features of scientific names as set by International Code of Zoological Nomenclature. (ICZN). (3marks)

d) Briefly describe the main characteristics of chordates. (3marks)

e) During evolution sharks became and are top predators. Briefly describe characteristics which enabled them achieve this. (3 marks)

f) Describe distinctive characteristics of amphibians that enable them to survive both in water and on land. (3 marks)

g) Briefly discuss the rise and fall of amphibians during the Carboniferous Period (360 to 280 million years ago). (3 marks)

h) Highlight the main characteristics of the order squamata of reptiles. (3 marks)

i) Describe the main characteristics of modern mammals. (3 marks)

j) Describe anatomical features of vertebrates and how they have enabled them to thrive in all environments. (3marks)

2 a) Discuss how the amniotic egg enabled reptiles to overtake amphibians as masters of the land. (10 marks)

b) Discuss how projection of vertebrate limbs assisted in colonization of land and air. (10 marks)

3 Citing relevant examples, discuss the economic and biological importance of birds. (20 marks)

4 Discuss the effect of human activities on the life and existence of other vertebrates. (20 marks)

5 Discuss factors that led to the rapid colonization of the earth by dinosaurs and factors that led to their sudden demise. (20 marks)