



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

DECEMBER SESSION EXAMINATION FOR

BACHELOR OF EDUCATION

SZL 200: VERTEBRATE ZOOLOGY

DATE: 24/4/2019

TIME: 11.00-1.00 PM

INSTRUCTIONS

Answer question one and any other two questions

QUESTION ONE (30 MARKS)

- a) Briefly describe three different types of baleen whales (3 marks)
- b) Describe at least THREE developmental phenomenon in the Fishes (3 marks)
- c) Classify the phylum chordata into THREE major subphylum and give examples in each case (3 marks)
- d) Highlight three morphological features of lampreys (3 marks)
- e) Describe with examples the three feeding types of the modern sharks (3 marks)
- f) Explain the key morphological characteristic of ampullae of Lorenzini, give their importance (3 marks)
- g) Briefly discuss three developmental types of the vertebrates in their reproductive stage (3 marks)
- h) Describe features which put the acanthostega at the intersection of fish and reptiles. (3 marks)
- i) Classify and briefly describe the Archaeopteryx (3 marks)
- j) Compare the mammalian and the reptilian jaws (3 marks)

QUESTION TWO (20 MARKS)

Discuss the Sea snakes which are some of the earliest reptiles.

QUESTION THREE (20 MARKS)

- a) Using a diagram describe a generalized structure of a vertebrate organism (10 marks)
- b) Discuss the salient features of a hag fish in the class Agnatha (10 marks)

QUESTION FOUR (20 MARKS)

- a) Draw a well labelled Fish structure highlighting its key adaptational features (10 marks)
- b) The early amphibians and reptiles could have evolved from the Sarcopterygian. Discuss (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss dolphins and poipoises (10 marks)
- b) Discuss primates in the class mammalia (10 marks)