



MACHAKOS UNIVERSITY

University Examinations 2017/2018
SCHOOL OF PURE AND APPLIED SCIENCES
DEPARTMENT OF BIOLOGICAL SCIENCES

FIRST YEAR FIRST SEMESTER EXAMINATION FOR
BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF SCIENCE IN BIOLOGY

BACHELOR OF EDUCATION

SZL 100: GENERAL ZOOLOGY

DATE:13/12/2017

TIME: 8.30-10.30 AM

INSTRUCTIONS

1. Answer Question 1 (**compulsory**) and **any two** questions in Section B.
2. Use clean well labelled diagrams wherever appropriate.

SECTION A

1. a) State **three** theories that explain the origin of life. (3 marks)
b) explain and give examples of the difference between a taxon and a taxonomic rank. (3 marks)
c) state **three** nutrition types utilized by protozoans. (3 marks)
d) Enumerate **three** classes of phylum porifera. (3 marks)
e) State the hypotheses that explain the origin of chordates. (3 marks)
f) Explain briefly the differences between vertebrates and invertebrate chordates. (3 marks)
g) State **three** characteristics of fishes. (3 marks)
h) State the difference between prokaryotic and eukaryotic cells. (3 marks)
i) Name **three** lophophorate phyla. (3 marks)
j) Explain the meaning of the term immunity (3 marks)

SECTION B

2. Discuss the main characteristics of birds. (20 marks)
3. Describe the basic structure of the animal nervous system. (20 marks)
4. Discuss the structure and function of eukaryotic cell organelles. (20 marks)
5. a) Discuss the Main features of members of the phylum Arthropoda. (14 marks)
b) Compare the relationship of members of the phylum Arthropoda with those of phylum Annelida. (6 marks)