



MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

SECOND YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN

AGRICULTURAL EDUCATION AND EXTENSION

SZL 0201: INVERTEBRATE ZOOLOGY

DATE:15/12/2017

TIME:11.00-1.00 PM

INSTRUCTIONS

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

SECTION A

1. a) Name the body regions of tape worms. (3 marks)
- b) Enumerate any **three** pseudocoelomate phyla. (3 marks)
- c) Define the following:
 - i. Metamerism (1 mark)
 - ii. Tagmatization (1 mark)
 - iii. Serial homologies (1 mark)
- c) Briefly explain four ecological roles played by insects. (3 marks)
- d) List **three** kingdoms of organisms in the five kingdom classification. (3 marks)
- e) State an economic importance of each of the following protozoans to man:
 - i. *Trypanosoma spp.* (1 mark)
 - ii. *Leishmania spp.* (1 mark)
 - iii. *Plasmodium spp.* (1 mark)
- f) Name three lower metazoan phyla. (3 marks)
- g) Draw and label the structure of ascon sponge type. (3 marks)
- h) Name the habitats where round worms are found. (3 marks)
- i) State three characteristics of mollusks. (3 marks)

SECTION B

2. Discuss characteristics of protozoans. (20 marks)
3. Explain why there is need to study invertebrates. (20 marks)
4. Describe the environments in which animals live. (20 marks)
5. Discuss main features of echinoderms. (20 marks)