



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF AGRICULTURAL EDUCATION AND EXTENSION

BACHELOR OF SCIENCE IN BIOLOGY

BACHELOR OF EDUCATION SCIENCE

SZL 201: INVERTEBRATE ZOOLOGY

DATE: 10/8/2016

TIME: 2:00 – 4:00 PM

INSTRUCTIONS:

Answer Question ONE (Compulsory) and Any Other Two Questions

1.
 - a) Briefly describe the three types of insect metamorphosis. (3 marks)
 - b) State two hypotheses that explain the origin of multicellularity. (3 marks)
 - c) Briefly explain the importance of nematodes to man. (3 marks)
 - d) Explain the phylogeny of platyhelminths. (3 marks)
 - e) Comment on the habitat and body symmetry of echinoderms. (3 marks)
 - f) Define the following:
 - i. Tortion (1 mark)
 - ii. Phylogeny (1 mark)
 - iii. Classification (1 mark)
 - g) Draw a well labeled structure of a trypanosome. (3 marks)
 - h) Outline the life cycle of *Aurelia*. (3 marks)

- i) Name the three lophophorate phyla. (3 marks)
- j) Explain the economic importance of ticks to humans. (3 marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

2. Invertebrates are important to man in many ways. Discuss. (20 marks)
3. Describe the sponge body forms. (20 marks)
4. Discuss the main characteristics of Echinoderms. (20 marks)
5. a) Describe the body regions of members of the subclass Eucestoda. (8 marks)
- b) Outline the life cycle of *Taeniarhynchussaginitus*. (12 marks)