



EMBU UNIVERSITY COLLEGE

(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

FIRST SEMESTER EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGY; BACHELOR OF SCIENCE IN MICROBIOLOGY AND
BIOTECHNOLOGY; BACHELOR OF SCIENCE; AND BACHELOR OF EDUCATION
SCIENCE**

SZL 101: INVERTEBRATE ZOOLOGY

DATE: DECEMBER 16, 2014

TIME: 16:00 – 18.00

INSTRUCTIONS:

ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)

Illustrate your answers with labeled diagrams where appropriate

1. Differentiate between Eukaryotes and Prokaryotes.

2. a) Describe coelomic cavities?

b) Explain ways in which coelomic cavities are formed.

3. Describe reproduction mechanisms of Protozoans.

4. Illustrate the generalized life cycle of the genus *Plasmodium* in human beings.
5. Explain the structural features of insects that have contributed to their biological success in the terrestrial environment.
6. Distinguish between the classes Digenea and Cestoda and explain briefly how cestodes are adapted for parasitic life.
7. Discuss the evidence that shows a common ancestry of arthropods and annelids.
8. Describe the similarities and differences between the phyla Cnidaria and Ctenophora.
9. a) State the characteristics of nematodes.

b) Illustrate the organization of the body wall tissues of nematodes as viewed in a cross section.
10. Describe torsion in class Gastropoda and state its significance.
11. Briefly discuss the distinguishing features of phylum Echinodermata.
12. Discuss the effects of the hookworms, *Necator americanus* infections in humans.

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