



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTUARIAL
SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION
SCIENCE AND BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES

1stYEAR 1st SEMESTER 2022/2023 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

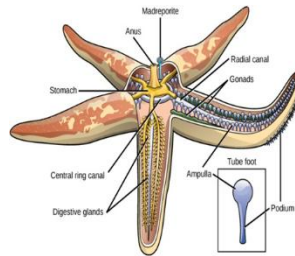
COURSE CODE:	SBB1103
COURSE TITLE:	INVERTEBRATE ZOOLOGY
EXAM VENUE:	STREAM: (BSC)
DATE: 20/12/2022	EXAM SESSION: 15.00-17.00PM
TIME: 2 HOURS	

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
 - 2. Candidates are advised not to write on question paper**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. List three classes belonging to Phylum Platyhelminthes and cite a specific example in each case (3 marks)
2. Name three phyla of invertebrates that have developed neurons (3 marks)
3. What are the three major distinguishing differences between invertebrates and vertebrates (3 marks)
4. Explain three ways in a pellicle contributes to the survival of protozoa in various habitats (3 marks)
5. List three phylum that exhibit *organ-system level* of organization (3 marks)
6. Name a phylum that exhibits metagenesis and describe the biological significance of this phenomenon (3 marks)
7. Name a phylum that is distinguished based on the presence of
 - i) Dorsoventrally flattened body (1 mark)
 - ii) Body covered by a calcareous shell (1 mark)
 - iii) Vascular water system and endoskeleton made of calcareous ossicles (1 mark)
8. Describe three unique characteristics of nematodes (3 marks)
9. Comment on each of the following features in molluscs
 - Excretory structures (1 mark)
 - Gaseous exchange (1 marks)
 - Mouth (1 mark)
10. Using a specific invertebrate example, identify the phylum represented by the diagram below and state one reason for your identity (3 marks)



SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Describe the biology of Porifera and name three examples of animals belonging to this group (20 marks)
12. Describe the biology of animal species belonging to phylum Arthropoda (20 marks)
13. Discuss factors that influence the distribution of invertebrates in the world (20 marks)
14. Using specific examples describe economic importance of invertebrates in Africa (20 marks)