



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT

2ND YEAR 1ST SEMESTER 2024/2025 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE:

HCB 2203

**COURSE TITLE:
MANAGEMENT**

ENTOMOLOGY AND PEST

EXAM VENUE:

STREAM: BSc Public/ Comm. Hlth & Dev

DATE:

EXAM SESSION:

TIME: 2.00 HOURS

Instructions:

- 1. Answer all the questions in Section A and 2 questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A (30 marks)

1. Give an example of one arthropod each from at least **three** classes in the Phylum Arthropoda using their scientific name. (3 marks)
2. Define the following terms with respect arthropods as biological carriers: Propagative, Cyclopropagative and Cyclodevelopmental. (3marks)
3. Describe **three** functions of an ovipositor in insects partially as a result of modification. (3 marks)
4. Briefly describe the life cycle Soft Ticks as obligate ectoparasites of domesticated mammals. (3 marks)
5. Name at least **three** vector species of the genus *Trypanasoma* which occur variously worldwide. (3 marks)
6. Describe the species of mites that are of public health importance to humans. Name the disease conditions they cause in human and their management. (3 marks)
7. List any **three** species of insects that are found in the order Diptera that transmit viral infections and the specific viruses they transmit in humans. (3 marks)
8. Name the **six** species that constitute the *An. gambiae* complex that commonly transmit the malaria parasites in sub-Sahara Africa. (3 marks)
9. Define the term Myiasis. Name any **two** species of arthropods or insects that are normally associated with myiasis. (3marks)
10. Define the term Pediculosis. Provide scientific names of **three** insects involved in Pediculosis. (3 marks)

SECTION B (40 Marks)

1. Describe general vector/pest control methods including their advantages and disadvantages in using these methods.
(20 marks)
2. Describe various fleas as pests, the specific parasites transmitted by some of the fleas, the disease they cause and the general control of fleas in the environment.
(20 marks)
3. Give an account of ways in which medical vectors of zoonoses can be managed to prevent, control, and treat the diseases they may transmit to humans. Use specific examples. (20 marks)
4. Explain in detail the three groups of the eight known filarial nematodes according to the niche within the body which they occupy. Describe the worms that are transmitted and the condition they cause.
(20 marks)