



**JARAMOGI OGINGA ODINGA UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN  
COMMUNITY HEALTH AND DEVELOPMENT**

**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2013/2014 ACADEMIC YEAR**

**CENTER: BUSIA**

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**COURSE CODE:** HCD 2114  
**COURSE TITLE:** INTRODUCTION TO MEDICAL ENTOMOLOGY AND  
PARASITOLOGY  
**EXAM VENUE:**  
**DATE:**

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**Instructions:**

- 1. Answer ALL questions in Section A and ANY other 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: ANSWER ALL QUESTIONS (30 Marks)**

1. Define the following terms
  - a) Ectoparasite
  - b) Vector
  - c) Obligate parasites (**3 marks**).
2. Insects in the order diptera consist of many insect families that are of medical importance among them mosquitoes. Describe the distinguishing features between Culex and Anopheles mosquitoes (**3 marks**).
3. List at least three benefits and three harmful effects of insects to man (**3 marks**).
4. Define the term Metamorphosis. Name any two insects that undergo complete metamorphosis (**3 marks**).
5. Protozoa are single cell organisms that contain important parasites of humans. There are six phyla of protozoa that contain parasites of medical importance. Name the phyla in which the following parasites are found: *Plasmodium falciparum*, *Giardia lamblia* and *Entamoeba histolytica* (**3 marks**)
6. Insects' legs are basically used for locomotion. In some insects the legs have been modified to perform other functions. With examples name at least three other functions that insects legs have been modified to perform (**3 marks**).
7. Describe the basic differences between class Myriapoda and class Arachnida (**3 marks**).
8. Malaria is a vector born disease that is transmitted from person to person by vectors. Name the genus of the **parasite** that causes malaria. Name the **definitive** and **intermediate** hosts of the malaria parasite (**3 marks**).
9. Name the definitive and alternative hosts of the following parasites: *Babesia microti*, *Taenia solium* and *Leishmania donovani* (**3 marks**).
10. Name at least one parasite that is transmitted by the following vectors: **Sand flies**, **Tsetse flies**, and **Ixodidae ticks** (**3 marks**).

**SECTION B. ANSWER ANY TWO QUESTIONS (30Marks)**

1. Describe **ANY** one of the following diseases. Malaria **OR** Trichomoniasis. Name the causal agent/s and mode of transmission. Describe prevention method and treatment (**15 marks**).
  
2. Arthropods in the class insecta have their bodies segmented into three distinct regions. List the segments that comprise the insect's body. List at least two appendages that are found on each segment and their functions (**15 marks**)
  
3. Name the parasites that cause the following diseases. For each parasite named state the mode of transmission, definitive and alternative host.
  - a) Taeniasis (**5 marks**)
  - b) Filariasis (**5 marks**)
  - c) Diphyllbothriasis (**5 marks**)
  
4. Describe the two forms of Schistosomiasis that infects humans. What are the causal agents of these infections in humans? State mode of transmission and prevention for Schistosomiasis (**15 marks**)