



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN COMMUNITY HEALTH
BCH 13M

AEH 4102: VECTOR AND PEST CONTROL

SPECIAL/SUPPLEMENTARY EXAMINATION

OCTOBER 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

Question ONE

- a) (i) List the advantages and disadvantages of using insecticidal points for prevention and control of chagas disease **(3marks)**
- (ii) List FOUR features that can be used to differentiate Anopheles larvae from culex larvae **(4marks)**
- b) Using relevant examples, describe the following modes of disease transmission by vectors
- i) Biological **(2marks)**
- ii) Mechanical **(2marks)**
- iii) Transovarian **(2marks)**

- c) (i) *Anopheles funestus* and *Anopheles arabiensis* both of which are malaria vectors preferably breed in distinctively different breeding habitats. Discuss the differences in the breeding habitats of these two malaria vectors **(4marks)**
- (ii) Discuss prevention and control of lymphatic filariasis **(5marks)**
- d) What is the public health importance of Tsetse flies **(3marks)**
- e) Describe FIVE qualities that an ideal rodenticide should possess **(5marks)**

Question TWO

- a) Although a step decline in malaria has been reported in malaria endemic areas during the last decade, malaria still persists and a myriad of challenges continue to hamper progression to the malaria elimination phase. Outline the challenges to malaria elimination **(12marks)**
- b) Discuss FOUR main bottlenecks in malaria case detection **(8marks)**

Question THREE

- a) Describe the role of cockroaches in disease transmission **(5marks)**
- b) Discuss the possible effective control methods of cockroaches **(5marks)**
- c) Discuss preventive measures against mites **(5marks)**
- d) Explain the traditional / natural methods of preventing head lice **(5marks)**

Question FOUR

- a) Discuss FIVE disease that are transmitted by ticks **(10marks)**
- b) Describe the public health importance of each of the following:
 - (i) Centipedes **(2marks)**
 - (ii) Millipedes **(2marks)**
 - (iii) Bedbugs **(2marks)**
 - (iv) Triatomia bugs **(2marks)**
 - (v) Spiders **(2marks)**

Question FIVE

- a) Pesticides are toxic to both pests and human. However, they need not be hazardous to humans and non-target animal species. Discuss FIVE precautionary measures when handling pesticides **(10marks)**
- b) Discuss FIVE qualities that an effective chemical control method for phlebotamus sand flies should have. **(10marks)**