



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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REGINA PACIS INSTITUTE OF HEALTH SCIENCES

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2019 TRIMESTER

FACULTY OF SCIENCES

DEPARTMENT OF COMMUNITY HEALTH

REGULAR PROGRAMME

CHD 214: MEDICAL ENTOMOLOGY AND VECTOR CONTROL

Date: DECEMBER 2019

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions in the booklet provided.

SECTION A: ANSWER ALL QUESTIONS

(30 Marks)

Q1. What is meant by the term “Arthropoda”?

(1 mark)

Q2. Name two classes of arthropods

(2

Marks)

Q3. Define the following terms:

(3 Marks)

a) Ectoparasite

b) Vector

c) Obligate parasite

Q4. Describe what is meant by “Entomophobia”

(1 Mark)

Q5. What is “complete” and “incomplete” metamorphosis in the insect life cycle?

(4

Marks)

Q6. In most insects, the thorax is divided into 3 parts. Name the two parts in which the wings commonly arise.

(2

Marks)

Q7. Name at least one parasite that is transmitted by the following vectors:

(3 Marks)

- a) Sand flies,
- b) Tsetse flies, and
- c) Ixodidae ticks.

Q8. Name two species of mosquitoes that transmit malaria to humans.

(2 Marks)

Q9. Name two characteristics that separate *Glossina* (tsetseflies) from all other flies.

(2 Marks)

Q10. Where on the human body are the lice “Phthirus” and “Capitis” usually found?

(2

Marks)

Q11. List four arboviral infections of humans, and for each one, mention the most effective method of vector and disease control.

(4

Marks)

SECTION B: ESSAY (ANSWER QUESTION ONE and Any Other QUESTION).

(40 Marks)

Q1. Arthropods are of medical and public health importance:

a) Outline the five classes of arthropods.

(5 Marks)

b) Describe in detail any five effects of insects on man.

(5

Marks)

c) With the aid of a well-labeled insect diagram, list the segments that comprise the insect’s body.

(10 Marks)

Q2. Vectors transmit diseases through unique life- cycles:

a) Describe the life cycle of the snail-borne schistosomiasis infection, both in the snail intermediate host and the human definitive host.

(10

Marks)

b) Describe the life cycle of the malaria parasite in the anopheles mosquito. **(10 Marks)**

Q3. Recently, a plague alert was declared in Mombasa because of interactions between huge wastes and rat infestations.

- a) What is the vector for plague **(1 Mark)**
- b) What is the agent transmitted by the vector **(1 mark)**
- c) What is the mode of transmission **(1 mark)**
- d) Describe the types of plague disease. **(9 Marks)**
- e) Outline the control measures for plague **(8 Marks)**

END