



MACHAKOS UNIVERSITY

University Examinations 2019/2020 Academic year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN PUBLIC HEALTH.

HPH 108: ENVIRONMENTAL HEALTH PARASITOLOGY

DATE: 8/12/2020

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

This paper consists of two sections A and B

SECTION A

Specific Instructions

- This section has one question
- The question is compulsory
- The question is 30 marks

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Define the following terms (3 marks)
- Paratenic host
 - Abberant parasite
 - Reservoir host
- b) State three (3) measures used to examine virulence after a parasitic infestation (3 marks)
- c) Explain the mechanism of bacterial pathogenicity (3 marks)
- d) Differentiate between endotoxins and exotoxins (3 marks)
- e) List six (6) ecto-parasites of public health significance and the resultant diseases (3 marks)
- f) Illustrate the lifecycle of lice (3 marks)
- g) Outline the public health strategies that are used to eradicate teeth amoeba (3 marks)

- h) Describe the life-cycle of leeches and bedbugs (3 marks)
- i) Highlight the public health strategies for controlling hook worms (3 marks)
- j) Outline the diagnostic procedures that determine the level of parasitic infestation (3 marks)

SECTION B:

Specific Instructions

- **This Sections has four (4) questions**
- **Answer any two (2) questions**
- **Each question is 20 marks**

QUESTION TWO (20 MARKS)

- a) Explain the characteristics of round worm infestation (10 marks)
- b) The success of parasitic infection is dependent on the host-parasite relationships, discuss this statement while applying the concepts of parasitic load and changing host conditions (10 marks)

QUESTION THREE (20 MARKS)

- a) With relevant examples, discuss the role of parasites in achieving environmental sustainability (10 marks)
- b) The local population in Machakos County has witnessed an increase in the number of people with Guinea Worm infestation. Diagnosis and treatment of persons is an important means of interrupting the spread of the infestation, Discuss. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Illustrate a generalized life-cycle of tapeworms living in human beings (10 marks)
- b) Hook worms affect the quality of life, describe their morphology and physiology (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain the pathogenesis of filarial worms (10 marks)
- b) You notice the need to address parasitic infections in a local primary school. Describe the strategies of a targeted school health promotion to eliminate infestation (10 marks)