



MACHAKOS UNIVERSITY

University Examinations 2019/2020 Academic year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN PUBLIC HEALTH.

HPH 207: ENVIRONMENTAL HEALTH PARASITOLOGY

DATE: 6/12/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS

This paper consists of two sections A and B

Section A

- This section has one question
- The question is **COMPULSORY**
- The question is **30 Marks**

QUESTION ONE (30 MARKS)

- a) Define the following terms (3 marks)
- i) Obligate parasite
 - ii) Facultative parasite
 - iii) Accidental parasite
- b) Identify the general characteristics of nematodes of medical importance (3 marks)
- c) Explain the host-parasite relationship (3 marks)
- d) Highlight three ways in which humans are exposed to helminthes (3 marks)
- e) Highlight three factors that are important for pathogenicity of protozoa (3 marks)
- f) Outline the mechanisms through which parasites can evade the host immune response (3 marks)
- g) Explain the biological life cycle of *Taenia solium* (3 marks)

- h) Complete the table below. (3 marks)

Parasite	Intermediate host	Definitive host
<i>Taenia saginata</i>		
<i>Schistosoma mansoni</i>		
<i>Plasmodium malariae</i>		

- i) With examples of parasites involved, outline any three major sources of parasites to human host. (3 marks)
- j) Briefly explain the methods used in the prevention of schistosomiasis (3 marks)

SECTION B:

- This section has **FOUR** questions
- Choose any **TWO (2)** questions.
- Each question is **20** marks

QUESTION TWO (20 MARKS)

- a) Describe the specimens used in laboratory diagnosis of parasites and how they are collected. (10 marks)
- b) Explain in details how you would advise a community on prevention and control of environmental parasites. (10 marks)

QUESTION THREE (20 MARKS)

- a) The hospital records at the health centre where you are attached indicates a rise in the diagnosis of trichomonas vaginalis, as the public health officer in charge, explain the management and control of the disease. (10 marks)
- b) Using relevant examples, explain the ways through which parasites can be classified. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Explain the transmission, symptoms and diagnosis of *Entamoeba histolytica* (10 marks)
- b) Explain the factors that determine the geographical distribution of parasites. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Describe the reproduction method and multiplication of parasitic protozoa (10 marks)
- b) You have just come from a two week workshop in Kisumu and you are unwell. A visit to the doctor confirms that you have developed malaria caused by the most common type of plasmodium parasite in the region. Explain the life cycle of this parasite. (10 marks)