



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (PUBLIC HEALTH)

HPH-108: ENVIRONMENTAL HEALTH PARASITOLOGY

DATE: 15/6/2021

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 (30 MARKS)

- A public health student comes across a research article indicating that all parasites kill their hosts. Using examples, critique this statement (6 marks)
- Explain the clinical symptoms of plasmodium parasite infection (3 marks)
- Cryptosporidium* species has been identified as a foodborne parasite. Explain the on-farm measures that can be applied in the prevention and control of this parasitic infection (3 marks)
- Using malaria parasites, distinguish between a definitive host and an intermediate host. Give examples in each case (3 marks)
- Explain how improper human waste disposal contributes to parasitic diseases. (3 marks)

- f) Distinguish between a biological disease carrier and a mechanical disease carrier; give an example in each case (3 marks)
- g) Explain why certain species of a parasite are found in one region and not the other (3 marks)
- h) Explain why ticks are vectors of public health importance (3 marks)
- i) A patient visits a health facility complaining of diarrhea, flatulence and cramping. Identify the parasitic disease in question and explain the diagnosis methods used to arrive at your conclusion (3 marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

Specific Instructions

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

QUESTION TWO (20 MARKS)

- a) Explain how human behavior can facilitate the transmission of parasitic diseases. (10 marks)
- b) Working in rice paddies exposes an individual to parasitic infections. Explain the life cycle of the parasite one is likely to be exposed to under such conditions. (10 marks)

QUESTION THREE (20 MARKS)

- a) Using specific examples, explain the pathological effects and complications that arise from parasitic infections (10 marks)
- b) As a public health officer working in Narok, you are concerned about the rise in taeniasis cases as reported in the various health centres in the area. Explain the contents of your presentation on the prevention and control of this infection. (10 marks)

QUESTION FOUR (20 MARKS)

Explain the socio-economic burden of parasitic diseases in Kenya.

QUESTION FIVE (20 MARKS)

- a) You were recently approached by a learning facility to educate learners on ways to reduce their vulnerability to fleas and bedbugs within their environment. Carefully prepare comprehensive learning content to disseminate. (10 marks)
- b) Explain the environmental changes that may facilitate or affect the transmission of parasites to their hosts. (10 marks)