



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF HEALTH SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN PUBLIC HEALTH

HPH 306: COMMUNICABLE DISEASES

DATE:

TIME:

INSTRUCTIONS:

This paper consists of two sections A and B

SECTION A

Specific Instructions

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

QUESTION ONE (30 MARKS)

SECTION A

- a) Differentiate between the following in reference to communicable diseases.
- Disinfection, Cleaning and Sanitizing (3 marks)
 - Emerging and re-emerging infectious diseases (2 marks)
- b) Outline two notifiable diseases targeted for eradication (2 marks)
- c) Explain the similarities and differences in dengue fever and chikungunya (3 marks)
- d) Specify the safety precautions you would suggest to neighbors to protect themselves and their children against schistosomiasis. (3 marks)

- e) Outline community-based control measures you could implement to stop the spread of tuberculosis (3 marks)
- f) Mention two bacterial infections with similar routes of transmission that are vaccine-preventable. Specify the respective vaccine (3 marks)
- g) Detail on how to identify cases of ascariasis and hookworm infection, as well as when and why to report patients to a higher-level medical facility. (3 marks)
- h) After 8 days in a region with a high malaria risk, a visitor from a region without malaria begins to exhibit signs and symptoms of the disease. Determine the malaria parasites that the person is most likely to be infected with, and explain your choice (2 marks)
- i) Explain how the presence of HIV can increase the risk of transmission of other Sexually Transmitted Infections and vice versa (3 marks)
- j) Given the uncertainty surrounding avian influenza, advice consumers of poultry and poultry products (3 marks)

SECTION B:

Specific Instructions

- **This section has four (4) question**
- **Answer any two (2) questions**

Each question is 20 Marks

QUESTION TWO (20 MARKS)

- a) Using a diagram, illustrate the "chain of infection" with reference to communicable diseases. (10 marks)
- b) Discuss typhoid fever as a communicable disease in relation to causative agent, mode of transmission, incubation period, clinical manifestation and prevention and control. (10 marks)

QUESTION THREE (20 MARKS)

- a) Use examples to describe pathways via which infectious agents can leave an infected host. (10 marks)
- b) The health sector in Kenya faces various challenges. As a health training practitioner discuss the key challenges in management of communicable diseases (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss on the various ways of managing or treating the different types of meningitis (10 marks)
- b) Describe and give examples of prevention and control measures targeting
- i) The susceptible host
 - ii) Reservoirs of infection
 - iii) Mode of transmission
- (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss on the various modes of transmitting Ebola (10 marks)
- b) Discuss how limitations in case identification and contact tracing affected the spread of COVID-19 (10 marks)