



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BACHELOR OF SCIENCE IN COMMUNITY HEALTH
END OF SEMESTER (MAIN) EXAMINATION AUGUST 2026

UNIT CODE: CHP 231 **UNIT NAME:** DISEASE SURVEILLANCE

DATE: 5TH AUGUST 2026

TIME: TWO Hours

Start: 5:30 PM

Finish 7:30PM

INSTRUCTIONS

1. This exam is marked out of 70 marks
2. This Examination comprises TWO Sections
Section A: Compulsory Question (30 marks)
Section B: Long Answer Questions (70 marks)

SECTION A: COMPULSORY (30 Marks)

Short Answer Questions:

Answer all questions. Each question carries the marks indicated.

1. Define the following terms as used in disease surveillance.
 - a) Pandemic (2 marks)
 - b) Herd immunity (2 marks)
 - c) Case Fatality Rate (CFR) (2 marks)
2. State four (4) objectives of disease surveillance. (4 marks)
3. State two (2) advantages and (2) disadvantages of passive surveillance (4 marks)
4. Classify each situation below as epidemic, endemic, pandemic, or sporadic. Give a reason for your answer.
 - a) Malaria cases reported at a consistent, expected level throughout the year in County K (2 marks)
 - b) A sudden cluster of meningitis cases in a boarding school in County Y, above the expected baseline (2 marks)
5. Describe the health requirements for international travel. (4 marks)

6. State three (3) functions of the Integrated Disease Surveillance and Response (IDSR) framework. (3 marks)
7. List three (3) sources of surveillance data used in public health system. (3 marks)

SECTION B: Long Answer Questions

ANSWER ANY TWO (2) QUESTIONS (40 Marks)

Question 8

- a) Discuss the process of setting up a community-based disease surveillance system in Kenya. (12 marks)
- b) State four (4) challenges that affect the effectiveness of community-based surveillance in low-resource settings. (8 marks)

Question 9

- a) Compare active, passive, sentinel, and environmental surveillance. For each type, state the data source, cost, and one Kenyan example. (12 marks)
- b) A Community Health Officer receives a report of 45 diarrhoea cases in one week in a village X compared to the usual 5 cases per week. Describe the steps they should take to investigate and respond to this situation. (8 marks)

Question 10

- a) Discuss five (5) disease data patterns a surveillance officer may observe in the field, and their public health significance. (10 marks)
- b) Using Kenyan examples, discuss how epidemic curves are used in outbreak investigation. (10 marks)

Question 11

- a) Examine the International Health Regulations (IHR 2005) and their application at Kenya's points of entry. (10 marks)
- b) Discuss quarantine and isolation as public health measures, drawing from experience during the COVID-19 pandemic. (10 marks)