



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BACHELOR OF SCIENCE IN COMMUNITY HEALTH
END OF SEMESTER EXAMINATION AUGUST 2025

UNIT CODE: HMD 329 **UNIT NAME:** INTEGRATED DISEASE SURVEILLANCE AND RESPONSE

DATE: 4 AUGUST 2025

TIME: TWO Hours

Start: 4:30 PM

Finish: 6:30 PM

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 (40 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, and provide examples;
 - a) Epidemic (2 marks)
 - b) Pandemic (2 marks)
2. State three (3) advantages of community-based disease surveillance systems. (3 marks)
3. Differentiate between **incidence** and **prevalence**. (4 marks)
4. Identify three (3) quantitative methods used in data collection for disease surveillance, with examples (5 marks)
5. List any four (4) requirements for international travel related to disease prevention. (4 marks)
6. Outline five (5) challenges faced in implementing effective surveillance at community level. (5 marks)

7. Mention five (5) sources of data in public health surveillance. (5 marks)

SECTION B: Long Answer Questions

ANSWER ANY TWO (2) QUESTIONS (40 Marks)

Question 8

- a) Discuss the components and processes involved in setting up a community-based disease surveillance system. (10 marks)
- b) Analyze the factors that influence the success of disease surveillance programs in low-resource settings. (10 marks)

Question 9

- a) Using examples, describe active, passive, and sentinel surveillance in terms of structure, cost, and applicability in disease surveillance. (12 marks)
- b) Using a hypothetical outbreak of cholera in a rural Kenyan village, demonstrate how data from surveillance systems could guide public health decision-making. (8 marks)

Question 10

A Community health officer is tasked with evaluating disease trends across counties.

- a) Explain five (5) types of data patterns they may observe and what they indicate. (10 marks)
- b) Propose five (5) ways data analysis could influence preparedness for international public health threats. (10 marks)