



AMREF INTERNATIONAL TRAINING CENTER

Qualification : Health Records & Information Technology Level 6
Unit Code : AITC/HRIT/CC/20/6/A
Unit of Competency : Apply Epidemiology and Surveillance

WRITTEN ASSESSMENT
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Marks for each question are indicated in the brackets.
2. The paper consists of **TWO** sections: **A** and **B**.
3. Candidates are provided with a separate answer booklet
4. **DO NOT** write on this question paper

This paper consists of THREE (3) printed pages

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A: (40 Marks)

Answer All Questions in This Section

1. During a disease surveillance meeting, a health officer explains that some diseases occur occasionally in isolated cases, while others spread across many countries affecting large populations. Differentiate between:
 - a) Sporadic disease. (2 Marks)
 - b) Pandemic disease. (2 Marks)
2. A newly employed Health Records Officer has been assigned to support community disease surveillance and health planning in a sub-county hospital. State FOUR reasons why understanding epidemiology is crucial for community health practice. (4 Marks)
3. A team of public health officers is investigating an outbreak of acute diarrheal disease in a rural village and needs to collect accurate information from affected households. Outline THREE methods of collecting data used in epidemiological investigations. (3 Marks)
4. A patient contracts tuberculosis after exposure to an infected family member. The disease progresses over several months before diagnosis and treatment. Highlight FOUR phases in the natural history of a communicable disease. (4 Marks)
5. The County Health Department is reviewing indicators used to monitor malaria control programs and wishes to ensure they provide reliable information for decision-making. Identify FOUR characteristics of good epidemiological indicators. (4 Marks)
6. Following an increase in communicable diseases in a rural community, public health officers are educating residents on how infections spread. Mention FOUR modes of transmission for infectious diseases commonly found in rural communities. (4 Marks)
7. A Community Health Worker is conducting household visits to educate families on preventing infectious diseases. State FOUR preventive measures used to break the chain of infection. (4 Marks)
8. The Ministry of Health has introduced a cervical cancer screening program targeting women in a local community. Enumerate THREE objectives of implementing screening programs in a local population. (3 Marks)

9. A Community Health Assistant is collecting household survey data on childhood immunization coverage and wants to improve the quality of the information collected. Suggest FOUR ways a Community Health Assistant can reduce bias when gathering data. (4 Marks)
10. Community Health Volunteers (CHVs) in Kenya have reported an unusual increase in suspected measles cases within their villages. The Sub-County Disease Surveillance Coordinator has instructed them to follow the standard surveillance process to ensure timely detection and response.
- a) Identify FOUR steps in the disease surveillance process. (4 Marks)
- b) Outline TWO benefits of effective disease surveillance in community health. (2 Marks)

SECTION B: (60 MARKS)

Answer *THREE* questions in this section.

Question 11 is *COMPULSORY*

11. As a community health worker, you have been tasked with the responsibility of planning and developing for population screening in your community.
- a) Explain **FIVE** methods of obtaining data from the community during the screening process. (10 Marks)
 - b) Describe **FIVE** factors considered before undertaking community screening. (10 Marks)
12. In one of the field excursion with a community health officer. You are requested as a student to perform health education on the following topics at a public Barraza.
- a) Define the term disease surveillance. (2 Marks)
 - b) Explain **THREE** objectives of disease surveillance to the community. (6 Marks)
 - c) Describe **SIX** steps involved in planning disease surveillance system. (12 Marks)
13. A study conducted in community X in 2007 reported an outbreak of Measles. Measles was diagnosed in 18 of 152 vaccinated children compared to 3 of 57 unvaccinated children.
- a) Differentiate between odd ratio and risk ratio. (4 Marks)
 - b) Draw a clear 2 by 2 matrix table filling in the data provided above. (6 Marks)
 - c) Calculate the risk ratio and odd ratio using the data provided, stating clearly the formula used in each. (10 Marks)
14. Epidemics can be classified according to the method of spread or propagation, nature and length of exposure to the infectious agent, and duration.
- a) Explain **THREE** types of epidemics. (6 Marks)
 - b) Describe **SEVEN** steps involved in investigation of an epidemic. (14 Marks)