

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR  
OF SCIENCE IN HEALTH RECORDS AND INFORMATION MANAGEMENT

HRIM 121: EPIDEMIOLOGY FOR HEALTH RECORDS AND INFORMATION  
MANAGERS I

STREAMS: BSC (HRIM)

TIME: 2 HOURS

DAY/DATE: TUESDAY 11/04/2023

2.30 P.M. – 4.30 P.M.

**INSTRUCTIONS: Answer question ONE and any other TWO in section B**

**SECTION A (30 MARKS)**

1. State three importance of screening [3 marks]
2. Define the following terms as used in epidemiology [3 marks]
  - (a) Bias
  - (b) Sample
  - (c) Population
3. In the concept of Why, Who and When outline how the following applies in epidemiological study. [3 marks]
4. List four ways in which the principles and methods used in epidemiology can be used to monitor the trends, pattern and distribution of diseases and health related events in populations. [3 marks]
5. State two types of hypothesis applied in epidemiological studies. [3 marks]
6. List three types of surveillance study [3 marks]
7. Outline three types of epidemiological studies [3 marks]
8. Differentiate between cohort studies and case studies [3 marks]
9. Enumerate three significance of epidemiological studies [3 marks]
10. List three types of cofounders in epidemiological research. [3 marks]

**HRIM 121**

**SECTION B (40 MARKS)**

11. By the use of a well labelled diagram discuss epidemiologic triangle. [20 marks]

12. The table below shows the test for screening a population, fill the totals and calculate the following.

	Disease	Non disease	Total
Positive	A true positive 15	B false positive 45	
Negative	C false negative 10	D true negative 20	
Totals			

- (a) Computer the table [4 marks]
- (b) Calculate the disease prevalence [4 marks]
- (c) Calculate sensitivity [4 marks]
- (d) Calculate specificity [4 marks]
- (e) Calculate the positive predictive value [4 marks]

13. The principles of the approaches used in epidemiology revolves around studying health related events. Therefore, as researcher you need to consider five key aspects of epidemiology. Discuss [20 marks]

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