



W1-2-60-1-6

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS 2023/2024

**EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN EPIDEMIOLOGY &
BIOSTATISTICS/ MASTER OF SCIENCE IN GLOBAL HEALTH**

PEH 3106: APPLIED EPIDEMIOLOGY

DATE: DECEMBER 2023

TIME: 2 HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

Question 1

- a) What are the key components of an outbreak response plan and how does communication play an important role in outbreak management? (15 marks)
- b) When are ecological studies appropriate and what are the limitations associated with these studies? (10 marks)

Question 2

- a) Discuss the role of epidemiologists in advocating for evidence-based policies. [12 marks]
- b) What responsibilities do epidemiologists have in translating research findings into policy action? [13 marks]

Question 3

- a) Define public health surveillance and describe the attributes of a good surveillance system (10 marks).
- b) Analyze the role of disease surveillance systems in early detection and monitoring of outbreaks (15 marks).

Question 4

- a) Differentiate between primary, secondary and tertiary prevention strategies for Non-Communicable Diseases [10 marks]
- b) Provide examples of each level of prevention and discuss their relative importance in reducing the Non-Communicable Diseases burden [15 marks]

Question 5

- a) Briefly discuss crucial elements of feasibility one needs to consider while designing community interventions (15 marks).
- b) Explain key principles of risk assessment in epidemiology (10 marks).

Question 6

- a) Discuss challenges involved in assessing environmental and occupational exposures in epidemiological studies (15 marks).
- b) Elaborate the strengths and weaknesses of case control studies [10 marks]

