



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR BACHELORS IN COMMUNITY HEALTH AND
DEVELOPMENT
2ND YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR
KISUMU

COURSE CODE: HCB 2311

COURSE TITLE: DISEASE SURVEILLANCE AND OUTBREAK INVESTIGATION

EXAM VENUE:

DATE:

EXAM SESSION:

TIME:

2 HOURS

Instructions:

- 1. Answer all the questions in Section A and ANY other TWO questions in Section B.**
- 2. Each question carries a different weight of marks.**
- 3. Candidates are advised not to write on the question paper.**
- 4. Candidates MUST hand in their answer booklets to the invigilator while in the examination room.**

SECTION A

Answer all questions (30 Marks)

1. Define and differentiate between the following terms: endemic, epidemic, pandemic, holoendemic, and hyperendemic. Provide examples of diseases associated with each of these epidemiological terms. **[10 Marks]**
2. Define disease surveillance and explain the differences between passive and active surveillance. **[4 Marks]**
3. Provide examples of situations where each type of surveillance in Question 1 is most effective. **[2 Marks]**
4. Outline the various sources of surveillance data used in disease surveillance and outbreak investigations. **[3 Marks]**
5. Discuss the primary purposes of a disease surveillance system and how it aids in identifying health needs, detecting epidemics, supporting research, and measuring program impacts. Provide real-world examples for each purpose. **[3 Marks]**
6. Explain the importance of Feedback in Surveillance Systems. **[5 Marks]**
7. Identify the methods and strategies employed in disease surveillance. **[3 Marks]**

SECTION B

Answer any two Questions (40 Marks)

1. Discuss the primary purposes of a disease surveillance system and how it aids in identifying health needs, detecting epidemics, supporting research, and measuring program impacts. Provide real-world examples for each purpose. (20 marks)
2. Outline the various sources of surveillance data used in disease surveillance and outbreak investigations, explaining the strengths and limitations of each as data sources. (20 marks)
3. Disease surveillance employs various methods and strategies to effectively monitor and track the occurrence and spread of diseases. Discuss some key components and processes involved in disease surveillance. (20 marks)
4. Calculate the primary and secondary attack rates for a hypothetical disease outbreak. Discuss the significance of these measurements in outbreak investigations.
5. Explain the steps involved in managing and controlling disease outbreaks. Discuss the purpose of preliminary investigations, identification of cases, data collection and analysis, implementation of control measures, dissemination of findings, and the importance of follow-up.