



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT**  
**3<sup>RD</sup> YEAR 1<sup>ST</sup> SEMESTER 2024/2025 ACADEMIC YEAR**  
**MAIN/KISUMU CAMPUS**

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**COURSE CODE: HPB 2311**

**COURSE TITLE: DISEASE SURVEILLANCE AND OUTBREAK INVESTIGATION**

**EXAM VENUE: LAB 11      STREAM: BSc Public/ Comm. Hlth & Dev**

**DATE: 8/1/25      EXAM SESSION: 9-11.00 AM**

**TIME: 2.00 HOURS**

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**Instructions:**

- 1. Answer all the questions in Section A and 2 questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

**SECTION A: Answer all the questions (20 marks)**

**Indicate whether the statement is TRUE or FALSE.**

1. Disease surveillance involves counting of cases of a disease.
2. Outbreaks are always caused by new pathogens.
3. Case definitions are not alterable in a surveillance system.
4. Social media is always a reliable source for outbreak information.
5. Disease surveillance functions need to be SMART.
6. Advances in technology have not improved the speed of disease reporting.
7. Disease outbreaks are solely a healthcare issue and no other professional or community member should be involved.
8. Passive surveillance relies on healthcare providers to report cases.
9. All outbreaks are reported to the public immediately they are detected.
10. Disease surveillance systems utilise several data sources including electronic tax registries.
11. Vaccination can cause disease outbreaks.
12. Surveillance helps identify trends in disease prevalence for targeted public health interventions
13. Quarantine is only implemented when there is a significant risk of transmission.
14. Resource allocation by policy makers can be negatively influenced by poor surveillance systems
15. Outbreaks cannot be identified through disease surveillance.
16. All people infected with a disease can pass it on from the moment of infection.
17. Public health officials always know the source of an outbreak immediately.
18. Disease surveillance must involve laboratory diagnosis.
19. Vital statistics are obtainable from health facilities.
20. All outbreak investigations follow the same procedure.

## **SECTION B**

**Answer any two Questions (50 MARKS)**

21. Discuss the advantages and disadvantages of utilizing “*social media*” for disease surveillance. (25 marks)
22. You are hired as a consultant to evaluate Somalia’s national disease surveillance system. Discuss the attributes that you would check. (25 marks).
23. Discuss “Syndromic surveillance” under the following subheadings: Definition, goal, advantages and disadvantages . (25 marks).