



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
PUBLIC/COMMUNITY HEALTH
2nd YEAR 2nd SEMESTER 2022/2023 ACADEMIC YEAR
MAIN/KISUMU

COURSE CODE: HCB 1208

COURSE TITLE: PRINCIPLES OF EPIDEMIOLOGY

DATE: **STREAM: (BSc. Public Hlth/ Comm Hlth and Dvpt)**

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and B and ANY other TWO questions in Section C**



Registration No.....

SECTION A: 20 Marks (Each question carries 1 mark)

NB: For these questions the candidate is supposed to write whether the statement is TRUE or FALSE.

1. Epidemiology is the basic science of public health.
2. You don't need to have all the information about a particular disease in order to contain it.
3. Not all associations are causal.
4. Some diseases occur through "chance".
5. William Farr was an epidemiologist
6. "Baseline" level is the expected level of disease
7. "Clustering" is a descriptive aspect of "Person" characteristics.
8. Descriptive studies are useful in hypothesis testing.
9. Convalescent carriers are incapable of transmitting disease to others.
10. A propagated epidemic is usually the result of Point source exposure.
11. Prevalence is a measure of "Old" infections over time.
12. The Key feature of an analytic epidemiologic study is lack of a comparison group.
13. Indirect disease transmission occurs through fomites.
14. A Health Event is synonymous to a disease.
15. Learned people get sick more frequently than the general population.
16. Case control studies are suitable when randomization is unethical.
17. In epidemiology, we use Odds ratio a measure of association when the disease is known but the exposure is unclear.
18. A "Vector" can also be a "Vehicle" for disease transmission and vice-versa.
19. An "Outbreak" means the same thing as an "Epidemic".
20. There is a relationship between the "Incidence" and the "Prevalence" of a particular disease in a given population.



Registration No.....

SECTION B: 30 Marks

Attempt **all** questions in this section. Answers must be precise and concise.

1. Explain the significance of the “Epidemiologic Triad” (10 marks)
2. In a study of the cause of lung cancer, patients who had the disease were matched with controls by age, sex, place of residence, and social class. The frequency of cigarette smoking was then compared in the two groups.
 - a. What type of study was this? (2 marks).
 - b. What was the purpose of matching? (2 marks)
 - c. What is the significance of “Social class” in epidemiology? (2 marks).
 - d. What is the independent variable in this study? (2 marks).
 - e. What was the need of comparison of smoking in two groups? (2 marks).
3. Discuss the similarities and differences between a case-control study and a cohort study (10 marks)

SECTION C: 20 Marks

There are a total of three (3) questions. Answer any **two (2)** questions.

1. Discuss the concept of “Herd immunity” (10 marks)
2. Discuss the various modes of transmission of infectious diseases (10 marks)
3. Discuss “Hill’s criteria” and its application in disease causality (10 marks)