



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF MASTER OF PUBLIC HEALTH
SPECIAL EXAMINATIONS NOV. 2020

COURSE CODE:	HMP 5112
COURSE TITLE:	Principles of Epidemiology
EXAM VENUE:	STREAM: (MPH)
DATE:	EXAM SESSION:
TIME:	3.00 HOURS

INSTRUCTIONS:

ANSWER ALL QUESTIONS IN SECTION A AND THREE (3) QUESTIONS FROM SECTION B

1. Explain **four (4)** key terms used in definition of epidemiology (**4 marks**)
 - (b) Explain why rate is considered more useful measure of morbidity and mortality than proportion (**2 marks**).
 - (c) The number of deaths in a country X during the year 2014 was 2,148,463. The population of the country as of June 2014 was 248,709,873. Calculate the crude death rate using 100,000 as a multiplier (**2 marks**).
2. Explain **four (4)** examples of infectious disease agents (**8 marks**)
3. Two broad terms that are usually used to categorize epidemiology are descriptive epidemiology and analytical epidemiology.
 - (i) Differentiate between these two types of epidemiology (**2 marks**)
 - (ii) Provide one example for each category (**2 marks**)
 - (iii) State **two (2)** uses for each the two types of epidemiology (**2 marks**)
 - (iv) Name which study type usually precedes the other (**2 marks**)
4. Briefly, but with relevant example, explain the following terms as applied in infectious disease epidemiology:
 - (i) Iceberg Concept of Infection (**2 Marks**)
 - (ii) Generation Time (**2 Marks**)
 - (iii) Incubation Period (**2 Marks**)
 - (iv) Inapparent Infection (**2 Marks**)
5. Briefly explain **four (4)** major useful sources of identifying a disease outbreak in a community (**8 marks**).

SECTION B LONG ESSAY QUESTIONS (60 marks)

6. Discuss the contribution of the following personalities in the evolution of epidemiology:
 - (i) Hippocrates (**5 Marks**)
 - (ii) John Graunt; (**5 Marks**)
 - (iii) John Snow, and (**5 Marks**)
 - (iv) Seliwanof Ignaz. (**5 Marks**)
7. Discuss the importance of person in explaining disease patterns (**20 marks**).
8. Discuss the main sources of data that are used in epidemiologic research work. (**20 marks**).
9. Discuss one Disease Causation Model that is usually used in infectious disease epidemiology (**20 marks**)

10. Discuss four (4) characteristics of infectious disease agents that are important in infectious disease epidemiology **(20 Marks)**