

**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE
AND TECHNOLOGY**

UNIVERSITY EXAMINATION 2012/2013

**EXAMINATION FOR BACHELORS IN COMMUNITY HEALTH
& DEVELOPMENT AND BACHELORS IN PUBLIC HEALTH**

(KISUMU LEARNING CENTRE)

COURSE CODE: HCD 3221

COURSE TITLE: PRINCIPLES OF EPIDEMIOLOGY

DATE:

TIME:

DURATION:

INSTRUCTION

- 1) This paper contains TWO sections.
- 2) Answer ALL question in section A (Compulsory) and ANY other Two questions in section B.
- 3) Write all answers in the booklet provided

SECTION A ANSWER ALL QUESTIONS (30 MARKS)

1. Name what encompasses study in epidemiology definition. (5 marks)
2. List four uses of epidemiology (4 marks)
3. State difference between classical epidemiology and clinical epidemiology (4 marks)
4. Give two basic fundamental of epidemiology (2 marks)
5. With aid of diagram give anatomical presentation of cohort study (3 marks)
6. List characteristics of population under study in epidemiology (3 marks)
7. Define the following terms
 - a) Incident risk (1 mark)
 - b) Incident rate (1 mark)
 - c) Point prevalence (1 mark)
 - d) Period prevalence (1 mark)
8. State three characteristics of a cause in epidemiology (3 marks)
9. Name four level of prevention (2 marks)

SECTION B ANSWER TWO QUESTIONS (40 MARKS)

1. Between 2008 and 2010, 72 pupils from Kochiege Primary experience pneumonia. The school had a population of 640 pupils. It is alleged that staying closer to river bank was the cause, about 256 pupils stayed closer to the river bank and 56 of them experienced pneumonia.
 - a) Calculate incidence risk in the school (3 marks)
 - b) Calculate the incidence rate in the school (2 marks)
 - c) Calculate the relative risk and risk difference (5 marks)
 - d) Calculate attributable risk (2 marks)
 - e) Calculate exposure attributable fraction and interpret (4 marks)
 - f) Calculate population attributable fraction and interpret (4 marks)
2. Describe how control of infectious diseases is achieved through 4 C's (20 marks)
3.
 - a) With aid of diagram describe the procedure of screening a disease in a population (8 marks)
 - b) Explain different types of screening (12 marks)
4. Describe various mode of transmission for communicable diseases (20 marks)