JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS 2012/2013

2ND YEAR 2ND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH AND DEVELOPMENT & BACHELOR OF SCIENCE IN PUBLIC HEALTH

(KISUMU LEARNING CENTRE)

COURSE CODE: HCD 3221

COURSE TITLE: PRINCIPLES OF EPIDEMIOLOGY

DATE: 15/4/2013 **TIME: 11.00-13.00PM**

INSTRUCTIONS

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

PART I answer all questions (30 marks)

1. Briefly explain key words used in epidemiology definition (5 marks)

2. Give the difference between clinical and classical epidemiology (4 marks)

3. List study designs used in analytical epidemiology (5 marks)

4. What are the purposes of epidemiology as a study of health and disease in population? (3 marks)

5. Define the following terms (3 marks)
   a) Exotic
   b) Infestation
   c) Mechanical vector

6. With the aid of diagram illustrate the dynamic of prevalence using Cistern analogy (5 marks).

7. List three elements that have to occur to form a carrier state (3 marks)

8. Give four stages required for successful parasitism (2 marks)

PART II Answer only two questions (40 marks)

1. a) "Developing countries are now warned to take appropriate steps to avoid the epidemics of Non-Communicable Diseases likely to come with socioeconomic and health development." Explain the above statement giving reasons (10 marks).

   b) Briefly describe criteria for causality as used in epidemiology (10 marks).

2. Outline criteria for screening programme (20 marks).

3. a) Define the following terms (4 marks).

   i. Measure of association
   ii. Measure of potential impact
   iii. Attributable fraction of exposed cases
   iv. Attributable fraction of population

b) In a food borne disease outbreak in Opukala village, 95 individuals were observed for the development of the disease, the outcome was summarized in the table below.

	Disease +	Disease −	Total
Exposure +	63	25	88
Exposure –	1	6	7
Total	64	31	95

Calculate

i. Risk in exposed group (2 marks)
ii. Risk in unexposed group (2 marks)
iii. Risk difference and interpret the result (3 marks)
iv. Relative risk and interpret the result (3 marks)
v. Attributable fraction of exposed cases (4 marks)
vi. Interpretation of attributable fraction of exposed cases result (2 marks)

4. Primary prevention is one of the 4 levels of prevention; describe how primary level of prevention will achieve prevention of disease occurrence (20 marks).