JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
END OF SEMESTER EXAMINATION FOR M.SC EPIDEMIOLOGY &
BIOSTATISTICS
KISII CAMPUS

COURSE CODE: HMP 5112

COURSE TITLE: PRINCIPLES OF EPIDEMIOLOGY

EXAM VENUE: **STREAMS: (MPH)**

DATE: 13TH AUGUST, 2019   **EXAM SESSION: 2.00 – 5.00PM**

TIME: 3 HOURS

Instructions:

1. **Answer question ONE (1) and any other THREE (3)**

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**

Question 1   **(15 marks)**

The following information is about a certain town which was collected for the year 1999:

- Total average population = 40,000
- Total number of live births = 4000
- Total number of deaths = 400
- Total number of deaths before the age of 28 days =50
- Total number of infant deaths = 200
- Number of women who died from pregnancy related causes = 160
- New cases of tuberculosis = 100
- All cases of tuberculosis = 300
- Deaths from tuberculosis = 60

Based on the above information calculate the following.

a) The incidence rate of tuberculosis.
b) The period prevalence rate of tuberculosis.
c) The case fatality rate of tuberculosis.
d) The Neonatal mortality rate.
e) The maternal mortality ratio

Question 2   **(15 marks)**

There has been reported a cholera outbreak in Kisii County. Describe the steps you will carry out in investigating the outbreak.

Question 3   **(15 marks)**

The major purpose in investigating the epidemiology of diseases is to learn how to prevent and control them. Discuss the levels of disease prevention.

Question 4   **(15 marks)**

Discuss the role of demography in public health.

Question 5   **(15 marks)**

Discuss the type of epidemiology concerned with describing the frequency and distribution of diseases and other health related conditions.