W1-2-60-1-6
JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS 2017/2018
YEAR 2 SEMESTER 1 EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE
IN COMMUNITY HEATLH
ICH 2206: EPIDEMIOLOGY I
TIME: 2 HOURS
DATE: JANUARY 2018

SECTION A: (48 MARKS) ANSWER ALL QUESTIONS

1. Describe the concept of herd immunity including the conditions that have to be met for herd immunity to work. (6 MARKS)

2. Kiangombe village has 2000 inhabitants. An index of ebola visits the village after which 100 people who come into contact with the index case get ebola. Another 200 people get ebola from the primary cases. All the 300 cases die from ebola. Calculate
   a. The attack rate (primary attack rate) 2marks
   b. secondary attack rate – 2marks
   c. Case fatality rate- 2 marks

3. Explain the natural history of infectious disease (6 MARKS)

4. Write short notes on epidemiologic triad (triangle) (6 MARKS)

5. Briefly explain confounding and bias in epidemiological studies (6 MARKS)

6. Distinguish primary, and secondary prevention (6 MARKS)

7. Describe the direct and indirect modes of disease transmission (6 MARKS)

8. Differentiate between carriers and cases of disease (6 MARKS)

SECTION B: (22 MARKS) ANSWER ONE QUESTION

1. Using relevant diagrams, discuss the following study designs (22 MARKS)

   i)   Cross-sectional (5 marks)

   ii)   Cohort (6 marks)

   iii)   Case Control (6 marks)

iv)   Experimental (5 marks)

2.   Write detailed notes on incidence and prevalence including how hey relate. (22 MARKS)

3.   There are six components of the infectious disease process constituting chain of disease

transmission. Discuss (22MARKS)