TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR THE DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT.

DCHM 15M/YEAR2/ SEMESTER1

APH 2202: FUNDAMENTALS OF EPIDEMIOLOGY

SPECIAL SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2017

TIME: 2 HOURS

Instructions to Candidates

This paper consists of **FIVE (5)** questions

Answer question ONE (COMPULSORY) and any other TWO questions.

This paper consists of two printed pages.

Question 1.   **(30 Marks)**

a). In a sub-county with an estimated mid-year population of 400,000 people , there were 40 cases of hepatitis reported during 2015.

i). What would be the incidence rate? (4 marks)

ii).Compare prevalence and incidence of a disease (4 marks)

iii).Highlight FIVE disease determinants in a population (5 marks)

b). Define;

   i.   Epidemiology   (2 Marks)
   ii.   Infant mortality rate (2 Marks)
   iii. Fertility rate (2 marks)
   iv.   Crude birth rate (2 marks)

c). List at least four (4) purposes of epidemiology. (2 Marks)

d). Differentiate between endemic and epidemic. (3 Marks)

e). Write short notes on:
  i. Descriptive epidemiology. (2 Marks)
  ii. Analytic epidemiology. (2 Marks)

Question 2   **(15 Marks)**

a) Explain **FIVE** reasons why it is necessary to investigate an outbreak **(5 marks)**
b) Outline **TEN** steps of an outbreak investigation **(10 marks)**

Question 3   **(15 Marks)**

Describe cohort study giving advantages and disadvantages.

Question 4   **(15 Marks)**

Discuss the possible transmission ways of infections.

Question 5   **(15 Marks)**

"There is close association between the triangle of epidemiology and the chain of transmission".
Discuss.