



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

P.O. Box 62157

00200 Nairobi - KENYA

Telephone: 891601-6

REGINA PACIS INSTITUTE OF HEALTH SCIENCES

MAIN EXAMINATION

SEPTEMBER – DECEMBER 2019 TRIMESTER

FACULTY OF SCIENCES

DEPARTMENT OF COMMUNITY HEALTH

REGULAR PROGRAMME

C/D/CHD 212: EPIDEMIOLOGY

Date: DECEMBER 2019

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions in the booklet provided

QUESTION ONE is COMPULSORY.

Q1. Epidemiology can be either descriptive or analytical.

- a) What is the difference between descriptive and analytical studies?
(2 Marks)
- b) Outline the descriptive study designs in order from the weakest to the strongest.
(6 Marks)
- c) Describe the analytic study designs from the weakest to the strongest.
(12 Marks)

Q2. Using a study problem of your choice:

- a) Write a brief statement of the problem (using hypothetical statistics) indicating the health determinants contributing to the problem.
(6 Marks)
- b) Illustrate how you would calculate the sample size.
(4 Marks)

c) Describe the sampling methodology most appropriate to your study. **(2 Marks)**

d) Describe five advantages that guided you to choose this study design over the other designs.

(4

Marks)

e) Describe how you would minimize the effect of “confounding” in your study.

(4 Marks)

Q3. You are running a donor \$6 million funded OVC program designed to improve the health and socio- economic situation of children living with HIV in Homa- Bay County. The program involves clinical assessments for nutritional status and viral load status. This program has been running for 1 year with a population of 3000 children. The donor has requested a report indicating the impact of the intervention.

a) What is the best study design would you implement to this end? **(2 Marks)**

b) State any four study objectives that would guide your study. **(4 Marks)**

c) Describe any disease measures you would be reporting from your study. **(6 Marks)**

d) Using a table, state and show how you would report the relationship between the dependent and independent variables. **(8 Marks)**

Q4. It has been hypothesized that women involved in manufacturing section in a lead factory have increased exposure to determinants of congenital conditions among newborn babies. To test this claim, you design a study using a population of workers in a lead factory in Kwale- Kenya:

a) State the most appropriate study design

(2

Marks)

b) Identify the study groups in your study.

(2 Marks)

c) Describe any five characteristics of this study design.

(5 Marks)

d) State any three study objectives that would guide your study.

(3 Marks)

e) Using a table, state and show how you would report the relationship between the dependent and independent variables.

(8 Marks)

END