



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A CONSTITUENT COLLEGE OF JKUAT)

(A Centre of Excellence)

Faculty of Applied and Health Sciences

DEPARTMENT OF **ENVIRONMENT AND HEALTH SCIENCE**

DIPLOMA IN NUTRITION AND HEALTH
DIPLOMA IN ENVIRONMENTAL HEALTH
DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT
(DNH 12J , DEH 12J, DCH 12J,)

APH 2203: BASIC EPIDEMIOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 2 PRINTED pages

Question ONE

- a) Distinguish between communicable and non-communicable diseases and give an example of each **(4marks)**
- b) Briefly explain the following methods of transmission of disease agents.
- (i) Transtadial transmission **(2marks)**
 - (ii) Vehicular transmission **(2marks)**
 - (iii) Transovarial transmission **(2marks)**
- c) (i) Define the term “infectivity” **(2marks)**
(ii) Briefly explain the quantitative use of the term infectivity **(3marks)**
- d) Distinguish between the following epidemiological terms
- (i) Primary and opportunistic pathogens **(2marks)**
 - (ii) Incubation and prepatent period **(2marks)**
 - (iii) Symptoms and syndrome **(2marks)**
- e) The table below shows the occurrence of a certain disease event in a community at Kenyan Coastal town in the month of October 2012.
Use it to answer the following questions

| Number of people | Developing the disease | Not developing the disease | Total |
|------------------|------------------------|----------------------------|-------|
| Exposed | 20 | 40 | 60 |
| Not exposed | 10 | 30 | 40 |
| Total | 30 | 70 | 100 |

Question TWO

- a) Explain how climate, soil and humans determine the occurrence of a disease in specific area **(7marks)**
- b) Name and briefly describe host disease determinants **(8marks)**

Question THREE

- a) State and describe the three main types of epidemiological studies. **(6marks)**
- b) Explain SEVEN sampling techniques used in epidemiological studies and outline TWO methods used for obtaining data in such studies. **(9marks)**

Question FOUR

- a) Outline FIVE reasons for investigating disease outbreaks **(5marks)**
- b) State and explain the steps used in investigating disease outbreaks in a population **(10marks)**

Question FIVE

- a) Briefly explain the meaning of the phrase “program evaluation” and outline SIX reasons for evaluating immunization programs. **(9marks)**
- b) Outline SIX main steps used in evaluation of immunization programs **(6marks)**