



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

## *Faculty of Business & Social Studies*

DEPARTMENT OF LIBERAL STUDIES, COMMUNITY DEVELOPMENT &  
COUNSELING

DIPLOMA IN COMMUNITY DEVELOPMENT & COUNSELLING

(DCDC A09)

## **VECTOR, DISEASE AND EPIDEMIOLOGY**

END SUPPLEMENTARY/SPECIAL EXAMS

**SERIES:** APRIL/MAY 2010.

**TIME:** 3 HOURS

### **INSTRUCTIONS TO CANDIDATES**

Answer question **ONE** and any other **TWO** questions.

- Q.1 (a) Briefly explain the stages followed in carrying out an epidemiology investigation of a disease. (16 marks)
- (b) Discuss the **THREE** (3) main types of analytical studies. (9 marks)
- (c) Define the following terminologies as used in epidemiology.
- (i) Infectivity
  - (ii) Virulence
  - (iii) Pathogenicity
  - (iv) Determinant
  - (v) Clinical infection (5 marks)
- Q.2 (a) Describe the measures you would employ to prevent and control Falciparum malaria in Coast Province. (12 marks)
- (b) Define:
- (i) Incidence of disease
  - (ii) Prevalence of disease
- and compare the two terms. (8 marks)
- Q.3 (a) A hypothetical example of MOH morbidity figures are given below.
- |                     |    |
|---------------------|----|
| Malaria             | 27 |
| Respiratory disease | 25 |
| Skin disease        | 9  |
| Dysentery           | 4  |
| Tuberculosis        | 4  |
| Cholera             | 3  |
| Typhoid             | 10 |
| Accidents           | 18 |

- Use a Pie Chart to illustrate this information. (6 marks)
- (b) Briefly explain the concept of measuring disease by case fatality.  
Cite one example. (10 marks)
- (c) Define the following:
- (i) Intrinsic determinants (2 marks)
  - (ii) Extrinsic determinants. (2 marks)
- Q.4 (a) Define the following:
- (i) Communicable diseases. (2 marks)
  - (ii) Zoonotic diseases. (2 marks)
- (b) Write short notes on stable malaria and unstable malaria. (8 marks)
- (c) (i) List **FOUR** species of plasmodium. (2 marks)
- (ii) Describe the life cycle of one species mentioned above. (6 marks)