

Paper 2

**TECHNICAL UNIVERSITY OF MOMBASA**  
**FACULTY OF APPLIED AND HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF**  
**SCIENCE IN COMMUNITY HEALTH**  
**BSCH 013S/YEAR3/ SEMESTER2**  
**APH 4308: POPULATION HEALTH**  
**SEMESTER EXAMINATION**  
**SERIES: APRIL/MAY 2016**  
**TIME: 2 HOURS**

*Instructions to Candidates*

This paper consists of FIVE questions

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

*This paper consists of two printed pages*

**Question ONE**

- a). Define the following terminologies as used in population health [4 mark]
- i. Crude death rate
  - ii. Maternal mortality Rate (MMR)
  - iii. Case fertility Rate
  - iv. Gross-Reproduction Rate (GRR)
- b). Explain the differences between demography and population health [4 marks]
- c). Outline the consequences of migration in population [4 marks]
- d). Identify SIX  
likely determinants of low fertility rate in Kenya [ 3 marks]
- e). State the objectives of population health [3 marks]
- f). Explain why women in Kenya outlive men this era [4 marks]

g). In 1987, a total of 12,088 HIV-related deaths occurred in males and 1,380 HIV-related deaths occurred in females. The estimated 1987 midyear population for males and females was 118,531,000 and 124,869,000 respectively. (4 marks)

- (a) Calculate the HIV-related death rate for males and females.
- (b) What type of mortality rates did you calculate in step a?
- (c) Calculate the HIV-mortality rate ratio for males versus females

### **Question TWO**

The Kenyan government uses various methods of measuring fertility changes which takes place in the population. The aim is to determine fertility levels in whole or segments of the population. Discuss the factors that are responsible of determining fertility levels. (20 marks)

### **Question THREE**

Discuss the demographic transition model that explains population dynamics. (20 marks)

### **Question FOUR**

a). Describe strategies which can be adopted by the Kenyan government to reduce maternal mortality. (8 marks)

b). The following data was collected from shimoni village to reflect the health of the residents.

Total population -2500

Population of infants-70

And numbers of still births (10) + live (80) in one year.

Total births are 90

Infant deaths -10 (neonatal =2, post-neonatal=8)

Under five deaths-14

Maternal deaths -2

Total deaths in one year-25

Using the above information, calculate the following: (12 marks)

- i. Still birth ratio
- ii. Still birth rate
- iii. Perinatal mortality
- iv. Neonatal mortality rate

- v. Neonatal mortality rate
- vi. Maternal mortality rate
- vii. Maternal mortality ratio
- viii. Crude death rate

**Question Five**

- (a) Briefly describe FIVE theories that explore the causes of migration [7.5 marks]
- (b) Discuss the health implications of the current international migration trends [12.5 marks]