



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND  
TECHNOLOGY  
SCHOOL OF HEALTH SCIENCES  
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE  
IN PUBLIC HEALTH/ COMMUNITY HEALTH AND DEVELOPMENT  
3<sup>RD</sup> YEAR 2<sup>ND</sup> SEMESTER 2017/2018 ACADEMIC YEAR**

**KISUMU CAMPUS**

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**COURSE CODE: HCD 3323  
COURSE TITLE: Demography and Health**

**EXAM VENUE:**

**STREAM: Bachelors**

**DATE:**

**EXAM SESSION:**

**TIME: 2 Hrs**

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**Instructions:**

- 1. Answer all questions in section A and any other 2 questions in Section B.**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

### **Section A (30 marks)**

1. In summarizing age of a population describe why the median would be preferred compared to the mean? (2 marks)
2. Briefly describe three ways of determining population ageing (6 marks)
3. Describe what a dependency ratio is and how it is calculated? (4 marks)
4. In demography what is natural increase (or decrease) and how is it calculated? (3 marks)
5. List 4 proximate determinants to fertility. (4 marks)
6. List the 4 factors/forces responsible for population dynamics and illustrate in a formula how they explain the current population. (5 marks)
7. Describe two approaches you would use to compare mortality across two populations.(6 marks)

### **Section 3 (40 MARKS)**

#### **Answer any two**

LEQ1. Describe the factors associated with increase in population observed during the baby boom in the 20<sup>th</sup> Century (20 marks)

LEQ2. Naivasha had a population of 35,000 people in Jan 2014, and 45,000 in Dec 2014. In the same year, 88 people died while 225 children were born. Calculate the following:

- a) The crude birth rate (5 marks)
- b) The crude death rate (5 marks)

Describe the effects of migration to: (10 marks)

- c)The receiving country
- d)The country of origin

LEQ 3. Nandi has a population of 200,000 people. In 2005, 450 live births were reported and 85 deaths.

Of these 80 deaths, 20 occurred late in pregnancy (after week 28 gestation). 30 occurred in the first week after birth,5 occurred on day 27 after birth, 15 occurred at 6 months after birth and 10 occurred at 2 years after birth.

Calculate the following:

- a) Infant mortality rate (5 marks)
- b) Early neonatal mortality rate (5 marks)
- c) Neonatal mortality rate (5 marks)
- d) Post neonatal mortality rate (5 marks)