



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN**  
**COMMUNITY DEVELOPMENT AND PUBLIC HEALTH**  
**4th YEAR 1st SEMESTER 2020/2021 ACADEMIC YEAR**

---

**COURSE CODE: HCB 3323**

**COURSE TITLE: DEMOGRAPHY AND HEALTH**

**EXAM VENUE: STREAM: (BSc. CD & PH)**

**DATE:1/12/20 EXAM SESSION: 3-6 PM**

**TIME: 3 HRS**

---

**Instructions:**

**1. Answer all the questions in Section A and ANY other 2 questions in Section B.**

- 1. Candidates are advised to write on the text editor provided, or to write on a foolscap, scan and upload alongside the question.**
- 2. Candidates must ensure that they submit their work by clicking 'FINISH AND SUBMIT ATTEMPT' button at the end.**

**SECTION A: Answer ALL questions in this section (30 marks)**

1. What are the vital statistics in population dynamics?  
( 3 marks)
2. Explain the optimum population theory with an illustration.  
(3marks)
4. Determine age-specific death rate if there are 1200 death among people aged 40-40 and their total population is 240,000.  
(3 marks)
4. Explain the following dynamics of a population
  - a) Mortality rate
  - b) Fertility rate
  - c) Migration rate  
(6 marks)
5. What are the TWO methods of estimating a population?  
(4 marks)
6. What is the difference between epidemiology and demography transition theory?  
(3 marks)
7. Explain how you would calculate the dependency ratio in a population  
(4 marks)
8. What is a geometric mean and what are its advantages in estimating the population size?  
(4 marks)

**SECTION B: Answer any 2 Questions in this section (40 marks each)**

1. With specific example, explain how a theory can help to explain the population growth of a country?  
(20 marks)
2. Explain how demography information is important for health care service delivery in a country?  
(20 marks)
3. With the use of pyramid, explain the composition of a population and possible health implications.  
(20 marks)
4. Explain how the universal health care affects the life expectancy of a population  
(20 marks)