UNIVERSITY OF ESWATINI

SECOND SEMESTER EXAMINATION PAPER 2020
FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF STATISTICS AND DEMOGRAPHY

COURSE CODE: DEM101

TITLE OF PAPER: INTRODUCTION TO DEMOGRAPHY

TIME ALLOWED: 2 HOURS

TOTAL MARKS: 75

Instructions

1.   Answer question one and any other two questions
2.   Show all formulae and workings, where required.

Candidates may complete the front cover of their answer book when instructed by the Chief Invigilator and sign their examination attendance cards but must NOT write anything else until the start of the examination period is announced.

No electronic devices capable of storing and retrieving text, including electronic dictionaries and any form of foreign material may be used while in the examination room.

DO NOT turn examination paper over until instructed to do so.

Question 1 [COMPULSORY]   **[25 marks]**

Please read the following paragraph carefully:

The Kingdom of Eswatini has a land area of 17,363 square kilometers. In mid-1997 it had a population of 929,718 people, which increased to 1,018,449 people by mid-2007. About 10.1% of the 1997-2007 increase was due to net migration. Between 1 January and 31 December 2007, a total of 24,363 babies were born, of whom 49.5% were male babies. Around 10.47% of the 2007 population consisted of females in the age group 20 to 29 years who had borne 60.68% of the babies born during 2007. In the same year 10,270 persons died of whom 394 died due to tuberculosis.

Using the above data on country A, calculate the following:

i.   Crude birth rate in 2007;

ii.   Crude death rate in 2007;

iii.   Population density in 2007;

iv.   Sex ratio in 2007;

v.   The increase in population between 1997 and 2007 due to net migration;

vi.   The proportion of deaths which occurred in 2007 which were due to tuberculosis;

vii.   The age specific birth rate for women aged 20-29 years in 2007; and

viii.   The average annual population growth rate between 1997 and 2007, assuming the exponential growth model.

Question 2   **[25 marks]**
Discuss the linkages between health and migration in Southern African countries.

Question 3   **[25 marks]**
a. Outline reasons why age is an important demographic variable.   [4]
b. Briefly explain what is meant by the following two terms: [4]
     i.   Age heaping
     ii. Age shifting
c. Compare each pair of the concepts listed below:
     i.   Coverage errors and content errors;   [2]
     ii.   De jure census and de facto census; and   [2]
     iii. Prospective surveys and retrospective surveys.   [2]
d. State and explain four problems in setting up and maintaining a countrywide civil
     registration system especially in developing countries.   [8]
e. Outline three key features of a census.   [3]

Question 4 [25 marks]

a. Explain in brief the following demographic variable impact on the chances of survival of infants and young children: [10]
    i.   The age of the mother at the time of birth;
    ii.   The child's birth order;
    iii. Birth interval;
    iv.   The child's sex; and
    v.   Breastfeeding.

b. Give a precise brief discussion on the following current mortality differentials in developing countries:
    i.   Occupation; [3]
    ii.   Rural-urban residence; and [3]
    iii. Education. [3]

c. Distinguish between the following concepts:
    i.   Incidence and prevalence; [3]
    ii.   Lifespan and life expectancy at birth [3]

END