UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2005

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TITLE OF PAPER :   INTRODUCTION TO DEMOGRAPHY

COURSE CODE :   DEM 101

TIME ALLOWED :   TWO (2) HOURS

INSTRUCTIONS :   THIS PAPER HAS FIVE QUESTIONS.
ANSWER QUESTION 1 AND <u>ANY OTHER TWO</u>
<u>(2)</u> QUESTIONS.

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GRANTED BY THE INVIGILATOR**

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QUESTION 1 (Compulsory)   **(6+4+5+5 marks)**

Use the following data for Country A to answer the questions below:

DATA FOR COUNTRY A

Number of women 15-49 in 1980	200,000
Population in 1970	1,000,000
Population 1980	1,200,000
Births in 1970	50,000
Births in 1980	60,000
Deaths in 1970	20,000
Deaths in 1980	18,000
Births between 1970 and 1980	550,000
Deaths between 1970 and 1980	190,000
Girls under age 5 in 1980	200,000
Children under age 5 in 1980	400,000

     i.   What happened to the crude birth rate and crude death rate for Country A between 1970 and 1980?

     ii.   Calculate the general fertility rate for Country A in 1980.

     iii.   What was the net migration of Country A between 1970 and 1980?

     iv.   Calculate the annual rate of growth of the population between 1970 and 1980.

QUESTION 2   **(6+6+8 marks)**

Write short but comprehensive notes on the following:

     a.   Selectivity of migration;

     b.   Population census;

     c.   Measures of age structure.

QUESTION 3   **(3+3+5+3+3+3 marks)**

     a.   Country X is now growing at an annual rate of 4.5 percent. The country has a population of 18.1 million and a land area of 913 million square feet.

           i.   If the present growth rate persists, in how many years will the population of country X triple in size?

           ii.   At this rate of growth how many years will it take for there to be one resident per square foot of Country X's soil?

iii.   If the rate of growth is constant at 4.5 percent for 10 years and then falls to 3.0 percent for the next 10 years, what will the size of the population be in 20 years?

b.   Define and explain the importance of the following measures:
i.   total fertility rate;
ii.   infant mortality rate; and
iii.   maternal mortality rate.

QUESTION 4   **(4+4+4+4+4 marks)**

Distinguish fully between the following concepts:

a.   fecundity and fecundability;

b.   stationary and stable population;

c.   pandemic and epidemic;

d.   migration stream and return migration; and

e.   rates and probabilities in demography.

QUESTION 5   **(6+8+6 marks)**

a.   "The vital statistics system is a by-product of an administrative process." Explain.

b.   Outline four reasons why age is an important demographic variable.

c.   Describe a population pyramid, how it is constructed, and the factors that determine its shape.