

UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER 2010

TITLE OF PAPER : INTRODUCTION TO DEMOGRAPHY

COURSE CODE : DEM 101

TIME ALLOWED : TWO (2) HOURS

**INSTRUCTIONS : ANSWER THREE QUESTIONS.
QUESTIONS 1 AND TWO ARE
COMPULSORY.**

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QUESTION 1 (COMPULSORY) (4+4+4+4 marks)

The population of a certain developing country at the beginning of 2003 stood at 1.5 million. During the year 30, 000 babies were born alive, 12,000 people died, 6,000 people entered the country to take up residence, and 2,000 left the country to reside elsewhere. The country's boarder crossing statistics also showed that 18,000 people visited the country and 25,000 of the country's residents visited other countries in 2003.

Based on this information, compute the following demographic measures for the year and interpret them:

- a. crude birth rate;
- b. crude death rate;
- c. population growth rate;
- d. population turnover; and
- e. gross migration rate.

QUESTION 2 (COMPULSORY) (4+4+4+4 marks)

You are provided with the attached data for Country Y in 2000.

Compute the following measures and interpret them:

- a. aged-child ratio;
- b. infant mortality rate;
- c. median age;
- d. crude death rate; and
- e. maternal mortality rate.

The Age-sex structure of the population of Country Y (in '000) in 2000

Age	Males	Females
0	35.7	34.8
1-4	143.9	140.0
5-14	328.1	320.6
15-24	202.4	216.2
25-34	120.7	142.2
35-44	114.7	123.3
45-54	93.6	87.2
55-64	63.5	60.4
65-74	50.2	47.6
75-84	9.0	12.8
85+	0.9	1.7

The Age specific death rates (per thousand) by sex for Country Y in 2000

Age	Male	Female
0	54.2	41.1
1-4	3.3	3.5
5-14	0.9	0.6
15-24	1.3	0.9
25-34	2.7	1.7
35-44	4.1	3.1
45-54	7.3	5.0
55-64	15.8	9.9
65-74	34.5	24.5
75-84	69.7	55.4
85+	198.5	161.8

Additional information:

Number of live births in 1995 – 75 500

Number of still births in 1995 – 22 400

Number of reported abortions in 1995 – 25 000

Number of maternal deaths in 1995 - 1600

QUESTION 3**(4+6+3+4+3 marks)**

- a. What is the difference, if any, between perinatal mortality and infant mortality?
- b. Outline the three preconditions for fertility decline according Ansley Coale.
- c. In what way does health demography differ from the clinical study of health?
- d. Explain what is meant by prorating. Why and how is it done?
- e. List three reasons why age is an important variable in demography.

QUESTION 4**(6+3+4+4+3 marks)**

- (a) Describe in detail the three population growth models and their assumptions.
- (b) What is the relationship, if any between, sampling error and sample size?
- (c) "A population census is about counting people". Comment on this statement.
- (d) Distinguish fully between a mover and a migrant.
- (e) Outline three limitations of vital registration in developing countries.