

UNIVERSITY OF SWAZILAND



EXAMINATION PAPER 2018

TITLE OF PAPER : POPULATION DYNAMICS II

COURSE CODE : DEM 216

TIME ALLOWED : TWO (2) HOURS

INSTRUCTION : ANSWER QUESTION 1 AND ANY TWO QUESTIONS.

Question 1 [Compulsory]

Using the data below, calculate and interpret:

- a. Crude Birth Rate [3 marks]
 - b. Age-Specific Fertility Rate for each age group. [12 marks]
 - c. The General Fertility Rate (*for women aged 15 – 49 years*) [3 marks]
 - d. Total Fertility Rate (*for women aged 15 – 49 years*) [3 marks]
 - e. Gross Reproduction Rate (*for women aged 15 – 49 years*) [4 marks]
 - f. Net Reproduction Rate (*for women aged 15 – 49 years*) [5 marks]
- TOTAL [30 marks]**

Age Group	Total Population	Sex Ratio	Number of births to women in age group	Sex Ratio at birth	Proportion of female babies surviving to midpoint of age interval
0-4	130,208	100.35	0	0.00	0.98934
5-9	129,828	100.6	0	0.00	0.98712
10-14	127,437	100.2	45	104.32	0.98609
15-19	120,168	102.94	2546	104.70	0.9837
20-24	106,516	96.39	5619	104.72	0.98128
25-29	96,739	92.75	5701	104.71	0.97871
30-34	86,370	95.31	4046	104.70	0.97524
35-39	66,981	99.72	1388	104.71	0.96953
40-44	49,696	96.68	210	104.72	0.95995
45-49	41,278	86.91	11	104.70	0.95208
50-54	32,818	75.27	0	0.00	0.92389
55-59	27,816	76.56	0	0.00	0.91968
60-64	22,869	78.52	0	0.00	0.89081
65-69	17,359	72.95	0	0.00	0.87721
70-74	13,254	60.54	0	0.00	0.79717
75-79	9,148	61.51	0	0.00	0.66714
80+	9,039	45.96	0	0.00	0.00000

Question 2

Describe and differentiate between the following concepts of population dynamics:

- a. Infecundity vs Infertility [3 marks]
- b. Parity vs Gravidity [3 marks]
- c. Life expectancy vs Longevity [3 marks]
- d. Endogenous vs Exogenous cause of death [3 marks]
- e. Demographic vs Epidemiological transition [3 marks]

TOTAL [15 marks]

Question 3

Using fertility theories, describe how fertility has transitioned in sub-Saharan Africa and the factors that have contributed to the observed pattern of transition.

TOTAL [15 marks]

Question 4

- a. Describe and differentiate between the following concepts of migration.
 - i. Immigration vs international out-migration [2 marks]
 - ii. Gross vs Net migration [2 marks]
 - iii. Migrant vs mover [2 marks]
- b. Discuss the implications of migration on the demographic and economic profile of Swaziland. [9 marks]

TOTAL [15 marks]