



UNIVERSITY OF ESWATINI

SECOND SEMESTER RE-SIT EXAMINATION PAPER, JULY 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 all three questions, each worth 25 marks.
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**[25 marks]**

You are provided with information in Table 1 together with supplementary data for a certain Country Y in Africa in 1998.

Table 1: Mid-year female population and live births by maternal age, 1998

Age Group	Females	Age-specific fertility rate
15-19	77844	0.0825
20-24	64760	0.1931
25-29	53464	0.1905
30-34	40074	0.1714
35-39	34193	0.126
40-44	26600	0.0655
45-49	24364	0.0361

Additional demographic data on Country Y, 1999

General sex ratio	89.5
Female total population	359480
Infant deaths	4256
Maternal deaths	42
Still births	1450

Using the data provided above, answer the following questions:

- Calculate the crude birth rate and interpret your answer; [11]
- Calculate the total fertility rate and interpret your answer; [3]
- Calculate the general fertility rate; [3]
- Calculate the infant mortality rate and explain your answer; and [4]
- Calculate the maternal mortality rate and interpret your answer. [4]

Question 2**[25 marks]**

- Briefly explain why migration is more difficult to conceptualize and measure than the other components of population change. [9]
- Outline four reasons why age is an important demographic variable. [8]
- Briefly describe the following models of population growth:
 - Arithmetic growth; and [4]
 - Exponential growth. [4]