UNIVERSITY OF SWAZILAND

DEPARTMENT OF STATISTICS & DEMOGRAPHY

SUPPLEMENTARY EXAMINATION, 2011

BASS

TITLE OF PAPER: POPULATION ESTIMATES AND PROJECTIONS

COURSE CODE: DEM 301

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY THREE (3) QUESTIONS

MARKS ALLOCATION: ALL QUESTIONS CARRY 25 MARKS

SPECIAL REQUIREMENTS: NONE

THIS QUESTION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

DEM– 301 SUPPLEMENTARY EXAMINATION MAY-2011

Question: 1

Discuss fully the computational procedure in the calculation of projected medium births when using the Period Fertility Method.

25 points

Question: 2

Given the population of Swaziland as follows:

Year:	Population:
1976/06/30	494 534
1986/06/30	681 058
1997/06/30	929 718

a) Using the exponential growth model estimate the population of Swaziland as of 30th June 2010 assuming the most recent rate of growth (1986 – 1997) has remained unchanged to the projected date

10 points

b) In which year will the 1997 population double if the most recent rate of growth remain unchanged

8 points

c) What is the difference between projections and estimates and how do they differ in terms of their use in development planning

7 points

Question: 3

a) Explain fully how mathematical projection methods differ from Component methods in population projections **15 points**

b) Time is of crucial importance in projections in terms of the validity of the projection for development planning. Discuss

10 points

Question: 4

Given the Geometric, Exponential and the Logistic curves, explain how they differ from one another and what their fundamental limitations are. Use diagrammatic illustrations in your answer

25 points

Question: 5

a) What is the role of variants and assumptions in population projections

5 points

b) Discuss the Census-Cohort Change Method

20 points