

UNIVERSITY OF SWAZILAND
DEPARTMENT OF STATISTICS AND DEMOGRAPHY
MAIN EXAMINATION PAPER 2013

COURSE TITLE: POPULATION ESTIMATES AND PROJECTIONS

COURSE CODE: DEM 301

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY THREE (3) QUESTIONS

SPECIAL REQUIREMENT: CALCULATOR

QUESTION 1**(10+10+10)**

The population of Egypt the population of Egypt was 67,968,600 in 2000, and in 2009 it was 79,861,417.

- a. Estimate the population of the country in 2005.
- b. Estimate the population of the country in 2013.
- c. How many years will it take the country's population to reach 88 million?

QUESTION 2**(10+8+6+6)**

- a. Outline the advantages of Arithmetic Progression over Geometric Progression.
- b. Compare and contrast Post Censal estimates and Projections.
- c. Explain the difference between Intercensal estimate and post censal estimate.
- d. What are the major uses of population projections?

QUESTION 3**(10+10+10)**

- a. Discuss the computational procedures of the Census Cohort-Change Method
- b. Briefly discuss the logistic curve
- c. Contrast the following:
 - i. Stochastic models, and deterministic models
 - ii. Mathematical extrapolations and component methods

QUESTION 4

(10+10+10)

- a. Explain the difference between Principal and Analytic series of projections.
- b. Explain the difference between exponential and geometric growth models.
- c. Discuss the advantages and disadvantages of mathematical methods.