

**UNIVERSITY OF SWAZILAND  
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND  
PLANNING  
SUPPLEMENTARY EXAMINATION, JULY 2007  
B.A., B.Ed., B.Sc., BASS.**

**TITLE OF PAPER: INTRODUCTION TO THE HUMAN ENVIRONMENT**

**COURSE NUMBER: GEP 121**

**TIME ALLOWED: THREE (3) HOURS**

**INSTRUCTIONS: THIS PAPER IS DIVIDED INTO TWO SECTIONS**

**SECTION A: SHORT ANSWERS / ESSAYS**

- 3. ANSWER ANY TWO QUESTIONS**
- 4. EACH QUESTION CARRIES 30 MARKS**

**SECTION B: TECHNIQUES AND SKILLS**

- 1. ANSWER ALL QUESTIONS (COMPULSORY)**
- 2. THIS SECTION CARRIES 40 MARKS**

**THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION IS GRANTED  
BY THE INVIGILATOR**

**SECTION A: SHORT ANSWERS / ESSAYS (60 MARKS)**  
**ANSWER ANY TWO QUESTIONS**

**QUESTION 1**

- a) "The challenge to control global diseases has a number of geographic aspects". Discuss using examples. (15 marks)
- b) Explain Ester Boserup's model of agricultural intensification. (15 marks)  
**(30 Marks)**

**QUESTION 2**

- a) 'Cities destroy the existing microclimates of an environment and create new ones'. Discuss using examples. (15 marks)
- b) Explain spatial growth model (Rostow-Taffee model) and its relevance in Africa. (15 marks)  
**(30 Marks)**

**QUESTION 3**

- a) Using examples ~~write~~ discuss on land use change. (24 Marks)
- b) Identify and explain three types of boundaries. (6 marks)  
**(30 Marks)**

**SECTION B: TECHNIQUES AND SKILLS (40 MARKS)**  
**COMPULSORY**

**QUESTION 1**

The USA population in 1985 was 243 193 000 and increased by 0.9% every year until the beginning of 2000. Calculate the increment during each year (both total population and increment during the year). Show these results in a table which is titled and labelled. (12 marks)

**QUESTION 2**

The degree or amount of interaction between two urban places is of considerable interest to geographers. The Gravity Model allows one to predict the amount of traffic or consumer flow between two adjacent cities.

- a) City A has 50 000 people and City B has 10 000 people. The distance between the two cities is 10 km. Calculate the amount of interaction between city A and B. (4 marks)
- b) Which city has a higher attraction force? (2 marks)

- c) What are the assumptions of the Gravity Model? (6 marks)  
 d) How can you empirically verify interaction between cities? (2 marks)

**QUESTION 3**

- a) Explain what a pie diagram is used for? (4 marks)  
 b) Using the data provided in table 1 as your example explain clearly (step by step) how a segmented circle is drawn. (10 marks)  
 (40 marks)

**Table 1: Number and Types of Registered Motor Vehicles in South Africa in 1980**

Type of Motor Vehicle	Number of Motor vehicles in 000' to nearest thousand
Motor cars	2 314
Mini-buses	70
Buses	19
Commercial vehicles	803
Motorcycles	189
Tractors	296
<b>Total</b>	<b>3 691</b>