UNIVERISTY OF SWAZILAND

DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING

FINAL EXAMINATION, MAY 2014

B.A., B.Ed., B.Sc., BASS, JMC3, IDE.

TITLE OF PAPER: INTRODUCTION TO THE HUMAN ENVIRONEMNT

COURSE NUMBER: GEP 121

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS: THIS PAPER IS DIVIDED INTO TWO SECTIONS

SECTION A: TECHNIQUES AND SKILLS

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

SECTION B: SHORT ANSWERS / ESSAYS

                    1. ANSWER ANY TWO QUESTIONS
                    2. EACH QUESTION CARRIES 30 MARKS

SPECIAL REQUIREMENTS: Graph paper

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GEP 121: INTRODUCTION TO THE HUMAN ENVIRONMENT – MAY 2014

SECTION A: TECHNIQUES AND SKILLS   (40 MARKS)
COMPULSORY

QUESTION 1

1. Using an appropriate graphical technique, represent the data in Table 1.   (10 marks)

Table 1: Religion reported for the population of a hypothetical country X

Church of affiliation	Number of people
Roman Catholic church	319 160
Pentecostal church	612 360
Anglican church	218 900
Methodist church	83 890
Hindu	51 340
Islam	64 300
Buddhist	49 764
Other Christian churches	334 768
Other non-Christian churches	49 960
No religion or church	72 567

2. Project the Swaziland population size in the year 2022 and year 2040 based on the 2012 population of about 1 300 000 and a growth rate of 1.9%.   (2 marks)

3. Using an appropriate graphical technique, represent the data in Table 2.   (10 marks)

Table 2: Hypothetical Population data for country H

Age Group	Country H	
	Males	Females
0 – 4	8.7	8.5
5 – 9	7.4	7.2
10 – 14	6.4	6.2
15 – 19	5.4	5.3
20 – 24	4.4	4.3
25 – 29	3.7	3.6
30 – 34	3.0	3.0
35 – 39	2.5	2.5
40 – 44	2.1	2.1
45 – 49	1.8	1.8
50 – 54	1.4	1.5
55 – 59	1.1	1.2
60 – 64	0.9	0.9
65 – 69	0.6	0.7
70 – 74	0.4	0.5
75 – 79	0.2	0.3
80+	0.2	0.2

4. Calculate the degree of connectivity of places appearing in figures 1, 2, and 3 by applying:
   a) Beta (ß) index of connectivity   (6 marks)
   b) The Planar graph gamma (γ) index of connectivity   (6 marks)
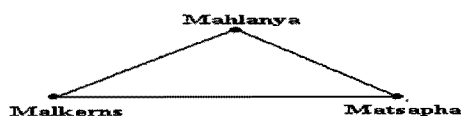   c) The Non planar graph gamma (γ) index of connectivity   (6 marks)

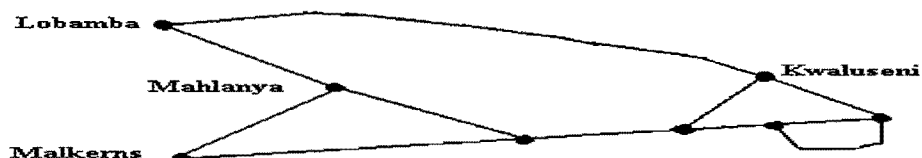**Figure 1:**   Road network for Malkerns and Mahlanya

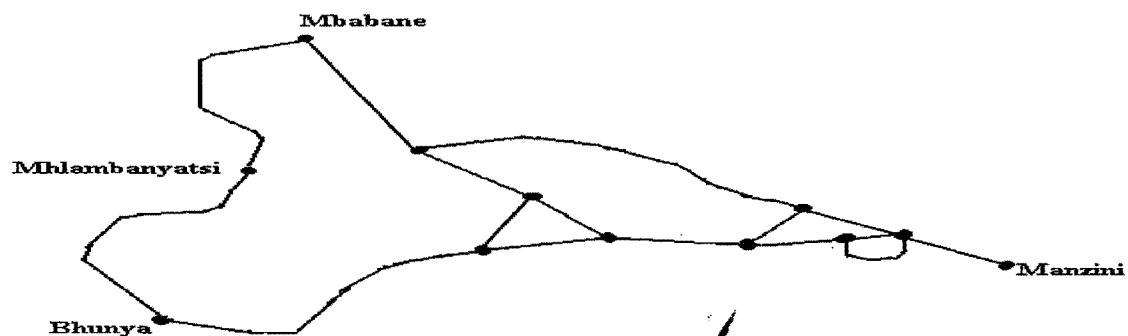**Figure 2:** Road network for Lobamba, Mahlanya, Malkerns, Matsapha and Kwaluseni

Figure 3:   Road network between Manzini, Bhunya and Mbabane

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

QUESTION 2

Explain how human populations cause ecosystems to change.   **(30 Marks)**

QUESTION 3

Analyze the schools of thought which attempt to explain the controversial relationship between people and the environment.   **(30 Marks)**

QUESTION 4

Discuss the causes and consequences child-headed households in Swaziland.   **(30 Marks)**

QUESTION 5

Analyze the geographic factors responsible for conflicts between states.   **(30 Marks)**