UNIVERSITY OF SWAZILAND
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND
PLANNING
SUPPLEMENTARY EXAMNATION, JULY 2008
B.A., B.Ed., B.Sc., B.A.S.S

TITLE OF PAPER: INTRODUCTION TO THE NATURAL ENVIRONMENT

COURSE CODE: GEP 111

TIME ALLOWED: THREE HOURS

INSTRUCTIONS: THIS PAPER IS DIVEDED INTO THREE SECTIONS

SECTION A: ANSWER ANY THREE QUESTIONS

SECTION B: TECHNIQUES AND SKILLS

ANSWER ALL QUESTIONS

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THE INVIGILATOR

ANSWER ANY THREE QUESTIONS

QUESTION 1

With the aid of diagrams, describe the main extrusive and intrusive volcanic features.   **(20 marks)**

QUESTION 2

Describe how the three main categories of rock found on the Earth's surface are formed.   **(20 marks)**

QUESTION 3

a. Describe the factors that may cause a soil creep.   (10 marks)

b. What are the effects of soil creep on our environment?   (10 marks)
                                                                                                      (20 marks)

QUESTION 4
Discuss the arguments put forward by Alfred Wegener to support his theory of

Continental Drift.   **(20 marks)**

QUESTION 5

a. Describe the main functions of the atmosphere.   (10 marks)

b. Describe the processes responsible for energy flow within the atmosphere.
                                                                                                      (10 marks)
                                                                                                      (20 marks)

SECTION B: TECHNIQUES AND SKILLS
ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION 1

a) Explain three ways in which scale can be expressed.   (6 marks)

b) Distinguish between a small and large scale.   (4 marks)

QUESTION 2

With reference to topographical map of Swaziland (PWD 12) calculate the following:
i) Surface area of farm number 922 in km^2 and in hectares.   (4 marks)

ii) Cultivated area of farm number 922 in km^2 and in hectares.   (4 marks)

QUESTION 3

With reference to topographical map of Swaziland (PWD 12) and using a vertical exaggeration of 10, draw a profile from Mhlangeni School (062388) to Nqabaneni clinic (127453).   (10 marks)

QUESTION 4

Calculate the wind chill factor under the hypothetical conditions shown in the table below.

Temperature (^{0}C)	Wind-speed (mph)	Wind-chill factor (kcal./m^2/hr)
-6	12	
52	60	
-21	16	
33	51	

    (12 marks)
    (40 Marks)