UNIVERSITY OF SWAZILAND
DEPARTMENT FO GEOGRAPHY ENVIRONMENTAL SCIENCE AND PLANNING

FINAL EXAMINATION PAPER MAY 2006

TITLE OF PAPER	:	PHYSICAL REESOURCES
COURSE NUMBER	:	GEP 216
TIME ALLOWED	:	THREE (3) HOURS
INSTRUCTIONS	:	SECTION A IS COMPULSORY ANSWER ANY TWO QUESTIONS FROM SECTION B ILLUSTRATE YOUR ANSWERS WITH APPROPRIATE DIAGRAMS AND EXAMPLES
MARKS ALLOCATION	:	QUESTION ONE (1) CARRIES 40 MARKS THE OTHER QUESTIONS CARRY 30 MARKS EACH.

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SECTION A: COMPULSORY QUESTION

Question 1

(a) The hydrograph is a graphical way of portraying stream discharge. Using a supporting diagram explain what a hydrograph attempts to portray. (20 marks)
(b) Briefly explain the following:
   a. Faults
   b. Subduction
   c. Continental drift
   d. The lithosphere **(20 marks)**

SECTION B: ANSWER ANY TWO QUESTIONS

Question 2

(a) Explain the types of evidence that support the theory of continental drift **(10 marks)**
(b) Explain major components of a floodplain. **(10 marks)**
(c) The atmosphere is subdivided on the basis of temperature change. Using a labelled diagram, illustrate the atmospheric divisions **(10 marks)**

Question 3

(a) Give an account of atmospheric motion (15 marks).
(b) Explain why the Earth experiences seasonal distribution of rainfall? **(15 marks)**

Question 4

(a) Explain what is meant by greenhouse gas and what are these gases? **(15 marks)**
(b) Explain the types of evidence that support the theory of continental drift. **(15 marks).**

Question 5

(a) Clouds are usually divided into four main families on the basis of their height above the ground. Briefly describe the four families. **(15 marks)**
(b) Using a diagram, draw a typical configuration of a weather station identifying the main instruments found. **(15 marks)**

QUESTION 3 (Continued)

(c) Explain the problems you encountered in carrying out the following:

(i) The measurement of the height of objects using the Abney level (clinometer) and isosceles triangle paper. (5 marks)

(ii) Slope measurement using the line-level. (5 marks)

(30 marks)

SECTION C

ANSWER ANY ONE QUESTION FROM THIS SECTION

QUESTION 4

(a) With the aid of diagrams, describe the following map projections:

(i) Gnomonic projection; (5 marks)
(ii) Stereographic projection; and (5 marks)
(iii) Orthographic projection. (5 marks)

(b) Write short notes on the following map projections:

(i) Mercator projection; and
(ii) Peters projection. (15 Marks)

(30 marks)

QUESTION 5

(a) Write short notes on the following:

(i) Basic graphic elements; (5 marks)
(ii) Primary visual variables; and (5 marks)
(iii) Secondary visual variables. (5 Marks)

(b) Outline the general rules for positioning lettering for the following:

(i) Place features; (5 marks)
(ii) Linear features; and (5 marks)
(iii) Areal features. (5 Marks)

(30 marks)