

64

COURSE CODE: GEP 227 (M) 2005

PAGE 1 OF 2

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION 2004/2005

BACHELOR OF SCIENCE YEAR II

COURSE CODE: GEP 227

TITLE OF COURSE: APPLIED PHYSICAL GEOGRAPHY

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: ANSWER QUESTION ONE (1) WHICH IS COMPULSORY,
AND ANY OTHER TWO QUESTIONS OF YOUR CHOICE**

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THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

- (a) What is a factor of soil formation? [5]
- (b) Discuss the factors of soil formation and comment on how each has influenced the development of soils in your country [20]
- (c) Define or give short descriptions of the following terms (each question carries 3 marks)
- (i) Eluviation
 - (ii) Soil horizon
 - (iii) Geomorphology
 - (iv) Isomorphous substitution
 - (v) Soil genesis

QUESTION 2

- (a) Identify the types of soil colloids and describe the various ways in which they obtain negative charges [10]
- (b) Discuss the significance of clay minerals in soil science [20]

Question 3

- (a) Discuss the processes involved in the development of landforms/slopes [20]
- (b) In what way is an understanding of rocks and their structures necessary in explaining landforms [10]

QUESTION 4

- (a) Define the term "weathering" [5]
- (b) Discuss the chemical weathering processes which are important in the weathering of rocks and minerals and indicate their significance in soil science [25]