

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

TITLE OF PAPER: APPLIED PHYSICAL GEOGRAPHY

COURSE CODE: GEP 227

TIME ALLOWED: THREE (3) HOURS

**INSTRUCTIONS: ANSWER QUESTION ONE (1) WHICH IS A
COMPULSORY QUESTION AND ANY OTHER
TWO QUESTIONS**

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE CHIEF INVIGILATOR**

SECTION A: COMPULSORY QUESTION

QUESTION 1

(a) Define the following terms and indicate their significance in soil science: **(Each question carries 2 marks).**

- (i) Mass wasting
- (ii) Soil genesis
- (iii) Ion exchange
- (iv) Isomorphous substitution
- (v) Heterotrophic bacteria

(b) Discuss the types of mass wasting and comment on their effect on the environment.

[30 marks]

[40 marks]

SECTION B: ANSWER ANY TWO QUESTIONS

QUESTION 2

Discuss the agents of chemical and physical weathering of rocks and minerals and comment on the relative importance of each agent in your named country. **[30 marks]**

QUESTION 3

(a) Discuss the factors of soil formation and comment on how each has influenced soil formation in your named country. [15 marks]

(b) Describe the processes of soil formation with appropriate illustrations in each case.

[15 marks]

[30 marks]

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[15 marks]

[30 marks]

QUESTION 4

(a) Define the term organic matter.

[5 marks]

(b) Discuss the significance of organic matter in soil.

[25 marks]
[30 marks]

QUESTION 5

Discuss the nature of soil pH and its role in soil.

[30 marks]