

2ND SEMESTER 2008/2009



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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION YEAR II AND
BACHELOR OF SCIENCE IN AGRONOMY YEAR II**

COURSE CODE: CP 207

TITLE OF PAPER: PEDOLOGY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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THE CHIEF INVIGILATOR**

QUESTION 1

Define or give short descriptions of the following terms:

- (a) Eluviation (3 marks)
- (b) Soil texture (3 marks)
- (c) Edaphology (3 marks)
- (d) Soil horizon (3 marks)
- (e) Soil morphology (3 marks)
- (f) Soil genesis (4 marks)
- (g) Soil consistence (3 marks)
- (h) Soil structure (3 marks)

[25 MARKS]

QUESTION 2

Write short notes on the characteristics of the following soil orders:

- (a) An Entisol (5 marks)
- (b) A Vertisol (5 marks)
- (c) An Ultisol (5 marks)
- (d) An Alfisol (5 marks)
- (e) An Oxisol (5 marks)

[25 MARKS]

QUESTION 3

Discuss the factors of soil formation clearly showing how each factor contributes to soil formation.

[25 MARKS]

QUESTION 4

Discuss the following pedogenic processes and show their effects of profile development

- (a) Salinization [5]
- (b) Calcification [5]
- (c) Rubefaction [5]
- (d) Alkalization [5]
- (e) Gleying [5]

[25 MARKS]

QUESTION 5

(a) List the first four category levels of the United States Comprehensive Soil Classification System and briefly indicate their nature and differentiating characteristics

(20 marks)

(b) Outline the principles of soil classification

(5 marks)

[25 MARKS]