



MASEÑO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN SOIL SCIENCE AND
PLANT NUTRITION WITH INFORMATION TECHNOLOGY
(MAIN CAMPUS)

ASS 203: SOIL GENESIS

Date: 22nd November, 2013

Time: 2.30 - 4.30 p.m.

INSTRUCTIONS:

- **Answer ALL questions in Section A and ANY TWO questions in Section B.**

INSTRUCTIONS:

This paper comprises sections A and B.

Answer ALL questions in section A and any TWO questions in section B.

SECTION A

Q1. Explain the following in the context of soil science: (5 marks)

- a) Parent material
- b) Weathering
- c) Pedogenesis
- d) Lithosphere
- e) Asthenosphere

Q2. Distinguish between the following:

- a) "The soil" and "a soil"
- b) Regolith and solum
- c) Pedon and soil profile
- d) Primary mineral and secondary mineral
- e) Land and soil

(10 marks)

Q3. Soil is viewed as a living entity. Discuss.

(15 marks)

SECTION B

Q4. Discuss the formation of organic soils. (20 marks)

Q5. Discuss chemical processes involved in mineral soil formation. (20 marks)

Q6). Discuss the factors and processes responsible for the differentiation of mineral soil profile leading to horizon formation. (20 marks)