

# EMBU UNIVERSITY COLLEGE (A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

#### FIRST SEMESTER EXAMINATION 2013/2014

# FIRST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN HORTICULTURE/ AGRICULTURAL EDUCATION AND EXTENSION/ AGRICULTURE

# ASS 101: LANDFORMS AND SOIL FORMATION

DATE: DECEMBER 6, 2013

TIME: 8.30 - 10.30 AM

## **INSTRUCTIONS:**

Answer Question ONE and ANY Other TWO Questions.

#### **QUESTION ONE**

a) Explain the meaning of the following terms in reference to landforms and soil formation

(3 marks each, total 15 marks)

- i.) Laterization
- ii.) Pedology
- iii.) Podzolization
- iv.) Humification
- v.) Landscape
- b) Write explanatory notes on the following:

i.) Functions of soil in nature

(5 marks)

ii.) Roles and importance of different microorganisms in soil.

(5 marks)

iii.) Problems that soil can cause to human beings

(5 marks)

#### **QUESTION TWO**

a) State the five factors of soil formation.

(10 marks)

b) Describe how each of the factors affects soil formation and development

(10 marks)

### **QUESTION THREE**

a) Describe the various types of weathering that occur in nature. (10 marks)
b) State the factors that affect the rate of weathering. (10 marks)

# **QUESTION FOUR**

a) Write explanatory notes on the various components that make up soil (10 marks)
 b) Draw a typical soil profile and describe the characteristics of each horizon (10 marks)

# **QUESTION FIVE**

- a) Write explanatory notes on the importance of soil erosion on the process of soil formation (10 marks)
- b) Describe the economic importance of soil minerals. (10 marks)

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