



# **MAASAI MARA UNIVERSITY**

## **REGULAR UNIVERSITY EXAMINATIONS**

**2018/2019 ACADEMIC YEAR**

**FOURTH YEAR SECOND SEMESTER**

### **SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT BACHELOR OF ENVIRONMENTAL STUDIES**

**COURSE CODE: EPM 415**

**COURSE TITLE: SOIL FOR  
ENVIRONMENTAL  
SCIENCE**

**DATE: 24/04/2019**  
**10.30A**

**TIME: 08.30-**

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**INSTRUCTIONS TO CANDIDATES**

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A (25 MARKS) AND ANY THREE IN SECTION B (45 MARKS)**

## **SECTION A (25 MARKS)**

1. Why does soil have numerous and varied definition?  
**(2 mks)**
2. What basis is used to classify soil structure?  
**(3 mks)**
3. Briefly describe Cation Exchange Capacity (CEC)  
**(2 mks)**
4. Using illustrations, briefly describe the functionality of the standard soil texture triangle.  
**(2 mks)**
5. Using illustration as appropriate, write short notes on
  - a. Soil as a redundant system  
**(2 mks)**
  - b. Nutrient Cycle **(2 mks)**
  - c. Soilscape **(2 mks)**
6. Using relevant examples, explain the following characteristics and process associated with soils:
  - a. Drainage vrsus permeability  
**(2 mks)**
  - b. Regolith versus Parent Material  
**(2 mks)**
  - c. Polypedon versus Soilscape  
**(2 mks)**
  - d. Porosity versus Specific Surface  
**(2 mks)**
  - e. Insolation versus Reradiation  
**(2 mks)**

## **SECTION B (45 MARKS)**

7. Discuss in sufficient detals the role of soil organisms  
**(15 mks)**
8. Using illustrations as appropriate, discuss in sufficient details the five (5) factors that influence soil formation.  
**(15 mks)**

9. Using examples as appropriate discuss in sufficient details the factors/characteristics used in soil classification.

**(15 mks)**

10. In sufficient details discuss the three weathering process.

**(15 mks)**

**//END**