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 versus 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 details 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)

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