

NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF AGRICULTURAL SCIENCES

Introduction to Pedology and Soil Physics January 2018(SLM303)

END OF COURSE EXAMINATION

- i) Answer at least one question from each section compulsorily.
- ii) Answer four questions in all.
- iii) Time allocated 2 ½ hours.

SECTION A

Question One

- a) What is the agricultural definition of the soil? (10 marks)
- b) List the importance of soil to man(2 marks)
- c) List the three 3 basic types of soils focusing the percentage particle size composition,(3 marks)
- d) Discuss the common factors that can destroy the agricultural uses of the soil. (10 marks)

SECTION B

Question Two

- a) Describe the structure call Rock(2 marks)
- b) List the type of rocks(3 marks)
- c) Write a short descriptive note on rocks formed as a result of sedimentation and give 3 examples of rocks formed from such actions. (10 marks)

Question Three

- a) What is weathering (5 marks)
- b) List five agents of biological weathering. (5 marks)
- c) Write a comprehensive note on physical weathering(5 marks)

Question Four

- a) Outline the components of;
  - i) Chemical and (5marks)
  - ii) Biological weathering (5marks)
- b) Use passive and active factors to explain the soil formation (5marks)

Question five

- a) Write a short note on
  - (i) Soil texture (3marks)
  - (ii) Soil permeability (3marks)
  - (iii) Soil infiltration rate.(3marks)
- b) List any 3 soil s reactions (3marks)
- c) State briefly the steps in site selection for cocoa (3 marks)

Question Six

- a) Discuss the importance of soil amendment to a crop producer. (8 marks)
- b) Write a short note on biological properties of the soil. (7 marks)