



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
DEPARTMENT OF CROP AND SOIL SCIENCE**

EXAMINATION: 2020_1 POP EXAMINATION

COURSE CODE: SLM 303

COURSE TITLE - INTRODUCTION TO PEDOLOGY AND SOIL CLASSIFICATION

Instruction: Answer 4 questions in all; No. 1 is compulsory and carries 25 marks and any other three questions carrying 15 marks each.

QUESTION

1. a. Define Soil Survey? (5 marks)
b. What is soil profile, list the components of soil profile (10 marks)
c. Explain the factors of soil formation (10 marks)

2. a. Briefly explain the following deposits in soil formation
i. Loess
ii. Alluvial
iii. Marine
iv. Organic (8 marks)
b. What do you understand by weathering,
Mention 5 processes involved in chemical weathering (7 mark)

3. a. What do you understand by soil classification? (5 marks)
b. State the major objectives of soil classification (5 marks)
c. Mention 3 major types of soil and how they can be identified (5 marks)

4. a. What are soil components (5 marks)
b. Explain size of soil particles (5 marks)
c. Briefly explain soil texture (5 marks)

- 5 a. Mention Five (5) orders in the USDA soil taxonomy (5 marks)
b. Briefly explain the five (5) orders mentioned above (10 marks)

6. a. Briefly explain the Nigerian Soils (5 marks)
b. Briefly describe four (4) different ecological zones in Nigerian climate (10 marks)