



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

**EXAMINATION: 2021\_2 POP EXAMINATION<sup>TM</sup>**

**COURSE CODE: SLM 516**

**COURSE TITLE: ADVANCE SOIL SCIENCE (2 UNITS)**

**TOTAL SCORE: 70 MARKS**

**INSTRUCTION: Answer *THREE* Question in all**

***Question 1 is compulsory (30 marks) and any TWO Questions (20 marks)***

**TIME ALLOWED: 2 hours**

**Q.1a.** List all the methods used in a field to estimate soil texture and describe the procedure in determining. (25 Marks)

**b.** Briefly explain the process of Particle-size analysis in the laboratory (5 Marks)

**Q.2a.** Enumerate all the different types of organisms that influence soil formation (10 Marks)

**b.** Describe the term Evapotranspiration (10 Marks)

**Q.3a.** Effects of tillage vary greatly, depending on soil, crop and weather conditions. Discuss under each (10 Marks)

**b.** State any five (5) different types of soil Tillage (10 Marks)

**Q. 4.** The plant growth is influenced by a variety of external and internal factors. Discuss the following: Light, Temperature, Water and Nutrients (20 Marks)