



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

**EXAMINATION: 2021\_2 POP EXAMINATION<sup>7836</sup>**

**COURSE CODE: SLM 514**

**COURSE TITLE: SOIL ECOSYSTEM (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.** The soil constitutes a variety of organisms forming a food web. List any 10 of these organisms, factors affecting their composition, number and activities. (16 Marks)

b. State clearly the factors affecting the soil ecosystem functions. (14 Marks)

**Q.2a.** Explain the nature of the Symbiosis between Rhizobia and Legumes and the diversity of Organisms Involved in Nitrogen Fixation (20 Marks)

**Q. 3.** Highlight the importance of dead Plants as Source of energy and relationship between plants and soil microorganisms. (20 marks)

**Q.4a.** Is there any benefit in the direct relationship between the Soil and Plants? (10 Marks)

b. Explain the development of Plant Roots relative to their role in the Soil (10 Marks)