



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

EXAMINATION: 2021_2 POP EXAMINATION

COURSE TITLE: SOIL MICROBIOLOGY AND BIOCHEMISTRY (2 CU)

COURSE CODE: SLM 505

TOTAL SCORE: 70 MARKS

INSTRUCTION: Answer 3 questions in all

Question 1 is compulsory (30 marks) and any other Two questions (20 marks each)

TIME ALLOWED: 2 Hours

Q1

- a. Discuss the role of microorganism in the soil (15 marks)
- b. Briefly explain five (5) microscopic methods plus culturing (15 marks)

Q2

- a. Mention and discuss the metabolic diversity of bacteria (20 marks)

Q3

- a. Explain the organic and inorganic P forms in soils (10 marks)
- b. What are the roles of P on the biota (10 marks)

Q4

- a. What is the difference between Nitrogen mineralization and immobilization (5 marks)
- b. Discuss the factors affecting Nitrification in the environment (15 marks)