



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

2025_2 EXAMINATIONS

COURSE TITLE: SOIL MICROCLIMATOLOGY (2 CU)

COURSE CODE: SLM 307

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 ½ Hours/

- 1.a. Discuss what you know as soil microclimatology. (10 marks)
- 1.b. Examine how radiation balance significantly affects atmospheric circulation. (10 marks)
- 1.c. Highlight the key factors that influence soil thermal properties. (10 marks)
- 2.a. Describe what you understand as effective precipitation. (10 marks)
- 2.b. Outline the factors that impact evaporation and evapotranspiration. (10 marks)
- 3.a. Discuss the distribution of humidity. (10 marks)
- 3.b. Thoroughly discuss the use of windbreaks and soil conservation farming methods for soil preservation (10 marks)
- 4.a. With the aid of diagram display the layout of a typical weather station. (10 marks)
- 4.b. What are the environmental parameters that determine the soil microclimate in an ecosystem. (10 marks)