



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF AGRICULTURAL SCIENCES**  
**DEPARTMENT OF CROP AND SOIL SCIENCES**  
**APRIL 2019\_1 EXAMINATION**

**COURSE CODE: AGR309**

**COURSE TITLE: AGRO-CLIMATOLOGY AND BIOGEOGRAPHY**

**CREDIT UNIT: 3**

**INSTRUCTIONS:** Answer five questions in all. Question one is compulsory and it carries 30 marks. The rest carry 10 marks each.

**TIME ALLOWED:** 3 hours

- 1) (a) Discuss the importance of climate and weather with respect to agriculture and transportation (10 marks)  
(b) List only the factors that affect evapo-transpiration (10marks)  
(c) Explain in detail the concept and meaning of climate change (10 marks)
- 2) (a) Differentiate between weather and climate (5 marks)  
(b) List five elements of weather (5 marks)
- 3) Discuss the mechanisms of condensation in agro-climatology (10 marks)
- 4) (i) List five instruments used in taking weather records in a meteorological station. (5 marks)  
(ii) Explain in detail the workings of Rain gauge and Barometer instruments in a meteorological station (5 marks)
- 5) Describe in details the climate of equatorial trough. (10 marks)
- 6) (a) What is temperature? (4 marks)  
(b) Mention any three factors that affect variations in temperature of a place (6 marks)
- 7) Explain the effects of the followings on crop growth and distribution  
(a) Rainfall (5marks)  
(b) Sunlight (5 marks)