

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

## Km 4 Kaduna-Zaria Expressway Rigachikun, Kaduna 2020\_1 EXAMINATON

**COURSE CODE: AGR 309** 

COURSE TITLE: AGROCLIMATOLOGY AND BIOGEOGRAPHY

**TOTAL CREDIT UNITS: 3 CU** 

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

## TIME ALLOWED: 3 hours

- 1) (a) Concisely differentiate between weather and climate (5 marks)
  - (b) Explain and illustrate with diagram the process of heating of the atmosphere (15 marks)
  - (c) In what ways could climate change affect agriculture? (10 marks)
- 2) Explain in detail the importance of climate and weather on transportation and communication. (10 marks)
- 3) (a) Mention the three (3) essential purposes of the liquid form of water (5 marks)
  - (b) Describe the solid form of water (5 marks)
- 4) Describe in detail, the two (2) processes involved in precipitation. (10 marks)
- 5 Describe the weather instruments Hygrometer and Anemometer (10 marks)
- 6) How do you maintain the following instruments in a weather station
  - (a) Wind vane (5 marks)
  - (b) Rainguage (5 marks)
- 7) Discuss rainfall and temperature as they affect livestock growth and distribution (10 marks)