



National Open University of Nigeria
Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja
Faculty of Science
2020_2 EXAMINATIONS

COURSE CODE: ESM 345

COURSE TITLE: Applied Climatology

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) carries 25 marks, while the other questions carry (15) marks each.

1.
 - a. Explain Climate-Crop Relations (5 marks)
 - b. Explain linear programming and benefit-cost analysis in assessing economic impacts of weather and climate (10 marks)
 - c. Briefly explain the influence of climate on the mining industry (5 marks)
 - d. Discuss motivations for weather modification by man (5 marks)
2.
 - a. With relevant examples, explain why most crops cannot be grown successfully unless the temperature exceeds some critical values. (4 marks)
 - b. Critically examine the role of wind in agriculture (6 marks)
 - c. With relevant examples, explain any two hazards on agriculture (5 marks)
3.
 - a. Describe the various ways high winds can serve as hazard to agriculture (5 marks)
 - b. Explain how weather influences crop pests and diseases (7 marks)
 - c. Discuss simulation analysis as it relates to assessment of economic impacts of weather and climate. (3 marks)
4.
 - a. Climate knowledge is useful in Agricultural planning and development. Discuss (6 marks)
 - b. What are the areas of consideration of climatic costs in industrial production? (3 marks)
 - c. Explain the direct and indirect ways climate affects animal husbandry (6 marks)
5.
 - a. What are the relevance of climate in commercial activities (service industry)? (6 marks)
 - b. What are the implications of ground de-icing on aircraft? (5 marks)
 - c. Discuss the relationship between climate and construction industry (4 marks)