



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
2021_1 EXAMINATIONS

COURSE CODE: ESM345

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.

- 1a) Explain the term 'photoperiodism' (2 marks)
 - b) Mention four ways in which high winds are hazardous to agriculture (4 marks)
 - c) What do you understand by climate-crop relation? (4 marks)
 - d) List four main climatic elements that affect crop production (4 marks)
 - e) Enumerate four major weather phenomena that constitute hazards to agriculture (4 marks)
 - f) Succinctly explain the influence of climatic conditions on animal husbandry (4 marks)
 - g).Mention three major types of engineering problem in building industry that are intimately linked to climate (3 marks)
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- 2a) Explain the impacts of climatic variation on human activities (7 marks)
 - b) State any three ways in which knowledge of climate can be useful in agricultural planning and development. (3 marks)
 - c) With an illustrative table, list ten (10) criteria considered and their weights in the choice of a new Federal Capital Territory for Nigeria (5 marks)
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- 3a) Discuss the effects of weather on Aviation (5 marks)
 - b) 'The demand of some manufactured products is weather dependent.' Expatiate (5 marks)
 - c) Briefly explain any two impacts of climate change on industry (5 marks)
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- 4a) With vivid examples, explain the impacts of volcanic ash on air traffic (5 marks)
 - b) 'To enhance safety while attempting to maintain flight schedule integrity, airlines are highly dependent upon accurate weather information.' Explain (5 marks)
 - c) Discuss the elements of designing buildings for comfortable indoor micro-climate in the humid tropics (5 marks)
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- 5a) Discuss the important weather elements during the construction phase of a building (5 marks)
 - b) Describe the effects of climate change on human settlement (5 marks)
 - c) Discuss the early and contemporary social scientists perspectives on climate as a determinant of human affairs (5 marks)