



National Open University of Nigeria  
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja  
Faculty of Science  
2023\_2 EXAMINATIONS\_

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**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) each marks.

- 1a. What is weather modification? **(3 marks)**
- 1b. Discuss the reasons for weather modification. **(6 marks)**
- 1c. Explain two techniques for modifying the rate of evaporation in an area **(4 marks)**
- 1d. What are the problems associated with weather modification? **(12 marks)**
  
2. Discuss the view by Critchfield (1974) that the climate of an area than any other element of the physical environment affects:
  - (a) The human health comfort and vigor **(10 marks)**
  - (b) Man's clothing and dressing style **(5 marks)**
  
3. How do the following major weather phenomena constitute hazards to agriculture?
  - (a) Frost **(5marks)**
  - (b) Hail stone and **(5marks)**
  - (c) High wind **(5marks)**
  
4. With reference to specific example(s), explain how the factor of climate can influence the location, growth and development of human settlements **(15 marks)**
  
- 5a. Discuss how weather and climate determine the occurrence of crops pests and diseases. **(6marks)**
- 5b. Appraise the influence of climatic conditions on animal husbandry **(9 marks)**

(4a) The internet and digital revolution has resulted in an unprecedented spike in threats and vulnerabilities in the cyberspace. Deviants, criminals and terrorists are exploiting the loopholes in information and system security to their advantage. With good examples, attempt an overview of cyberspace threats and vulnerabilities. **(9.5 marks)**

(4b) In your view, what are the various risk factors that expose internet users in Nigeria to cybercrime victimization? **(8 marks)**

(5a) Discuss the five-level problem solving strategies for the management and control of threats in the cyberspace. **(9.5 marks)**

(5b) According to Ndubueze (2017), certain the 21st century social forces influenced the emergence of the discipline of cyber criminology. List and discuss the forces. **(8 marks)**