



**National Open University of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**SEPTEMBER 2020\_1 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) each marks.

- 1a. What is climate variability? **(3marks)**
- 1b. Discuss how climate and climatic variations influence man and his activities **(6 marks)**.
- 1c. Explain the concept of resilience of a society to climatic extremes **(6 marks)**.
- 1d. Discuss the vulnerability of a society to climatic extreme **(10 marks)**
  
2. Explain in details some of the ways in which **three** of the following climatic element influence crops growth and yield:
  - (a) Solar radiation **(5marks)**
  - (b) Temperature **(5marks)**
  - (c) Moisture **(5marks)**
  - (d) Wind **(5marks)**
  
3. Describe the effects of weather on aviation as it relates to any **three** of the following:
  - (a) Thunder storms and other convective activities **(5 marks)**
  - (b) Turbulence **(5marks)**
  - (c) Ceiling and visibility **(5marks)**
  - (d) Ground De-icing **(5marks)**
  
- 4a. What is climate change? **(1mark)**
- 4b. What are the likely impacts of climate change on industries? **(14 marks)**
  
- 5a. What is flood? **(3 marks)**
- 5b. Mention causes of flood? **(5 marks)**
- 5c. What are the measures to be used to prevent, control or minimize floods? **(7 marks)**