



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
APRIL, 2019_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 conditioning? **(2marks)**

1b. With relevant examples discuss the potential impacts of climate change on human settlements **(8marks)**

1c. Briefly highlight the four weather variables (or combination of variables) that are considered important during the construction phase of building. **(4marks)**

1d. Identify any five programs or strategies that can be adopted to minimize the emission of carbon from human settlements. **(5marks)**

1e. List six weather control/modification activities employed by man. **(6marks)**

2a. Identify any two positive effects of wind in the growth and yield of crops. **(3marks)**

2b. Enumerate on four major ways by which wind may constitute a hazard to agriculture. **(4marks)**

2c. Mention four ways in which the knowledge of climate can be useful in agricultural planning and development. **(8marks)**

3a. Elaborate on the causes of acid rain. **(5marks)**

3b. Explain the concept of weather modification **(4marks)**

3c. State the 3 major reasons why humans attempt to control the weather. **(6marks)**

4a. Briefly describe the terms climatic vulnerability and climatic resilience. **(2marks)**

4bi: Highlight the 5 factors that determine a society's vulnerability to climatic impacts. **(5marks)**

ii: List the 3 factors that determines a society's resilience to the impacts of climate **(3marks)**

4c. Describe the 5 major types of flood. **(5marks)**

5a. Enunciate the environmental problems associated with the drought phenomenon **(3marks)**

5b. Discuss the impacts of any four weather conditions on flight operations and safety in the aviation industry. **(12marks)**