

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**

**Faculty of Science**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: ESM 343**

**COURSE TITLE: CLIMATE CHANGE AND THE ENVIRONMENT**

**CREDIT: 2 Units**

**TIME ALLOWED: 2Hours**

**INSTRUCTION: Answer Question ONE (1) and any other THREE (3) Questions**

1a) Briefly discuss the following proxy data (5x3=15mks)

*(i)Glacial Ice Deposits*

*(ii)Biological Marine Sediments*.

(*iii)Inorganic Marine Sediments.*

(*iv)Terrestrial Geomorphology and Geology Proxy Data*

*(v)Terrestrial Biology Proxy Data*.

1b) Highlight any five types of plant succession you know (5x2=10mks)

2a) Temperature decreases gradually from the equator to the Polar Regions. Discuss (3x4=12mks)

2b) Outline the general categories under which climatologist reconstruct the earth's past climate.(3x1=3mks)

3a) What are the major characteristics of the urban areas (10mks)

3b) In what way do urban climate differs from rural climate. (5mks)

4a) Discuss succinctly the three atmospheric processes that modify the solar radiation (3x4=12mks)

4b. Air temperature decreases as height increases. Expatiate. (1x3=3mks)

5a) Elucidate on the concept of the Ozone Layer (10mks)

5b) Highlight the harmful effects of a severe decrease in the concentration of ozone (1x5=5mks)