



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**JULY, 2017 EXAMINATION**

**COURSE CODE: BIO 304**

**COURSE TITLE: GENERAL ECOLOGY**

**CREDIT: 2 units**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION: Answer question ONE (1) and any other THREE (3) questions**

1. (a) Enumerate the harmful effects of decreasing the earth's ozone layer. (2 marks)  
(b) Outline some special adaptations desert plants and animals have developed. (5 marks)  
(c) Compare and contrast the tropical rain forest and the savanna in terms of rainfall, animal types, vegetation and burning by fire (8 marks)  
(d) Give a detailed description the following attributes of population:  
(i) Population size (5 marks)  
(ii) Population growth (5 marks)
2. (ai) Define global warming. (2 marks)  
(ii) Give a detailed description of how global warming is affected by industrialization? (6marks)  
(b) Describe the process of production of acid rain. (7marks)
3. (ai)What do you understand by the term ecological succession? (2 marks)  
(ii) Humans are considered to be initiators of secondary succession. Discuss. (8 marks)  
(b) Photosynthetic plants are of gross importance in the ecosystem. Discuss. (5 marks)
4. (a) As an Ecologist, give **five** reasons for sustaining the earth's biodiversity. (6 marks)  
(b) Identify the **three** world's major environmental problems (3 marks) and suggest how they could be tackled (7 marks).
5. (a) List the primary reservoirs for the chemicals in the biogeochemical cycles. (2 marks)  
(b) With the help of a well labeled illustration, describe the carbon cycle. (13 marks)