



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL SCIENCE AND RESOURCE MANAGEMENT**  
**Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**2022\_2 EXAMINATION**

**COURSE CODE: ESM 426**

**COURSE TITLE: Biogeography**

**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) marks each.

**QUESTION 1a.** Using concrete example define Ecosystem. **(10 marks)**

b. Mention five inorganic part of the ecosystem. **.(5marks)**

c. Outline five organic structure of the ecosystem. **.(5 marks)**

d. Using adequate examples differentiate between autotrophs and consumers. **.(5marks)**

**QUESTION 2.** Briefly explain of the following processes of biotic succession.

a. Primary succession. **.(5marks)**

b. Secondary succession. **.(5marks)**

c. Climax community. **.(5marks)**

**QUESTION 3.** Explain the importance of the following in ecosystem functioning.

a. Decomposers. **.(7.5marks)**

b. Solar energy. **(7.5marks)**

**QUESTION 4 a.** Explain the term ecosystem equilibrium. **.(6marks)**

b. With appropriate illustration describe the grazing food chain. **.(9marks)**

**QUESTION 5 a.** Using adequate example describe a resilient ecosystem. **.(6marks)**

b. State factors that promote resilience in an ecosystem. **.(9marks)**