



QUESTION SET 1

NATIONAL OPEN UNIVERSITY OF NIGERIA

Plot 91 Cadastral Zone, Nnamdi Azikwe Express Way, Jabi, Abuja.

DEPARTMENT OF SCIENCE EDUCATION

EXAMINATION: 2021_1

COURSE CODE: SED327

COURSE TITLE: ENVIRONMENT AND POPULATION

CREDIT UNIT: 3

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE

- 1a. Outline the structure of an ecosystem. (4Marks)
- b. Write brief notes on the following components of an ecosystem.
 - i. Producer (3Marks)
 - ii. Consumer (3Marks)
 - iii. Decomposer (3Marks)
- c. What do you understand by the term Habitat? (3Marks)
- di. Explain the term biotic potential in ecology. (3Marks)
- ii. Giving relevant examples, write short notes on Inter-specific, Intra-specific competitions and Population density (6Marks)
- 2ai. Describe the term climate. (2Marks)
- ii. List any four (4) commonly measured climatic factors. (4Marks)
- bi. What is an ecosystem? (3Marks)
- ii. Explain briefly biogeochemical cycles. (3Marks)
- c. Explain the concept of food chain and Ecological Pyramids in a Fresh water ecosystem. (3Marks)
- 3a. Explain briefly the relationship between ecosystem, habitat and species (4Marks)
- b. What is a lake? (2Marks)
- c. Explain the concept weather. (2Marks)
- di. State the human impact on the natural environment. (4Marks)
- ii. State the clearest manifestation of degradation on natural environment. (3Marks)
- 4a. Describe the biosphere. (3Marks)
- bi. Look at the natural environment and try to highlight all the characteristics originating from civilized human activity. (3Marks)
- ii. Explain the biosphere as part of the natural environment (3Marks)
- ci. What is fresh water ecology? (2Marks)
- ii. Write an essay on the structure and characteristic of fresh water ecosystem (4Marks)

- 5a. Define pollution and list three ways known to you through which our environment can be polluted. **(5Marks)**
- b. Explain what is meant by biome. Why do we say that minor communities can be found in biome? **(2Marks)**
- ci. How does man affect energy transfer in an ecosystem? **(3Marks)**
- ii. List three processes you observed in your home which could be due to the activities of decomposers. **(3Marks)**
- d. The graph below represents two patterns of population growth rate. Identify which is density dependent and density independent. **(2Marks)**

