



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

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

**FACULTY OF EDUCATION**

**2020\_1 Semester**

**COURSE CODE: SED327**

**COURSE TITLE: ENVIRONMENT AND POPULATION**

**CREDIT UNIT: 3**

**TIME ALLOWED: 3 HOURS**

**INSTRUCTION: Answer Question One and Any Other Three**

- 1ai. Explain the term Demographic Transition in a developing country like Nigeria (**5 marks**)
- ii. Explain briefly how the process of meiotic division contributes to variation in a population (**5 marks**)
- b. Enumerate five (5) differences between monocotyledons and dicotyledons (**5 marks**)
- ci. Describe the process of fertilization in plants (**5 marks**)
- di. State the popular view on the solution to the problem of population explosion (**2 marks**)
- ii. There are some economic needs for you as human to survive in a nation like Nigeria. Discuss three (3) of them (**3 marks**)
- 2a. Explain the phases of growth (**6 marks**)
- bi. Define the following Homeostasis and a Cell (**3 marks**)
- ii. What can move the system away from equilibrium? (**2 marks**)
- c. Explain two types of growth we have in plants (**4 marks**)
- 3ai. What is *population*? (**3 marks**)
- ii. Write out three ways which man adopts to control environmental factors that would have reduced his population (**3 marks**)
- b. What are the effects of population expansion on people and environment? (**3 marks**)
- ci. State three (3) importance of mitosis (**3 marks**)
- ii. What are the differences between mitosis and meiosis among organisms? (**3 marks**)
- 4a. Differentiate between growth and development (**3 marks**)
- b. What is the difference between the cell division in multi cellular plant and that of bacteria? (**2 marks**)

- ci. Is there any hope that in future that the world will not exceed its carrying capacity? (2 marks)
- ii. Describe how COVID 19 virus is (8 marks)
- contracted
  - transmitted
  - Its signs and symptoms
  - How it affects world population
- 5a. Define the following methods of reproduction
- i. Regeneration (3 marks)
- ii. Vegetative reproduction (3 marks)
- bi. State two disadvantages of Vegetative reproduction (4 marks)
- ii. Explain three types of natural Vegetative reproduction (3 marks)
- c. The first stable product of photosynthesis is a simple sugar (glucose). This process can be represented by a reaction which is presented by a chemical equation. Write a balanced equation for the process. (2 marks)