



NATIONAL OPEN UNIVERSITY OF NIGERIA
91 Cadastral zone, Nnamdi Azikiwe Expressway, Jabi, Abuja
FACULTY OF EDUCATION
DEPARTMENT OF SCIENCE EDUCATION
2025_2 EXAMINATIONS

COURSE CODE: SED 327
COURSE TITLE: ENVIRONMENT AND POPULATION
CREDIT UNIT: 2
TIME ALLOWED: 2 HOURS
INSTRUCTION: ANSWER QUESTION NO ONE (1) AND ANY OTHER TWO (2)

Question 1

- a. The ecosystem comprises a diverse community of organisms, each performing distinct roles to facilitate the flow of energy; describe the functions of autotrophs, herbivores, carnivores, omnivores, and detritivores in facilitating energy flow within an ecosystem?
- b. Distinguish between a community and a population: which among the two is more complex, give reasons.
- c. The abiotic environment encountered by an organism is influenced by multiple factors; State and explain the factors of the physical environment.

(30 marks)

Question 2

In order to secure continued survival of humanity within their natural environment, man has devised a range of both natural and artificial strategies: State and explain four (4) natural and six (6) artificial methods of birth control.

(20 marks)

Question 3

Plants uniquely convert inorganic matter and solar energy into valuable organic form called food for the benefit of man; Discuss in details how humans completely depend on plants for survival?

(20 marks)

Question 4

- a. The carry capacity in an environment is the maximum population size that can be sustained over a relatively long period of time, by that environment; Suggest reasons why it will be difficult for the world to reach its carrying capacity.
- b. Define population density and briefly explain the 3 ways of estimating population density.

(20 marks)