



NATIONAL OPEN UNIVERSITY OF NIGERIA
National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Department of Biological Sciences
2022_2 EXAMINATION

COURSE TITLE: ANIMAL ECOLOGY

COURSE CODE: BIO 313

CRDIT UNIT: 2

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER TWO QUESTIONS

- 1a. Define population (1mk)
 - b. What did you understand by term ecosystem? (2 marks)
 - c. Explain population genetics (2mks).
 - d. Define Behavioral ecology (2mks).
 - e. Describe population cycle (5mks)
 - f. Describe Differential reproductive success (7mks).
 - g. Discuss population growth (11mks).
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- 2a Discuss briefly the term Birth rate or Natality rate (6mks)
 - b. Explain briefly the term Death or Mortality rate (5mks)
 - c. Discuss briefly Carrying capacity (Resources) (4mks)
 - d. In a given population of *Clarias gariepinus* raised in an earthen pond, population limiting factors tend to affect their population. Assuming natality is just double to mortality, and the population size is 1000 individuals. Calculate the percentage of natural growth rate, assuming death rate is 60 (5mks)
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- 3a. What is Symbiotic Relationship? (2mks)
 - b. Enumerate the biotic factors that affect population growth (4mks)
 - c. Describe the biology and ecology of Shad (*Ilisha africana*) (5mks)
 - d. Discuss three types of symbiotic relationships (9mks).
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- 4a. Explain the three types of competition by mechanism (9mks)
 - b. Describe the regions of electromagnetic spectrum (11mks)
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- 5a. Discuss Animal population control (4mks)
 - b. Describe the habitat of Leatherback turtle (*Dermochelys coriacea*) (5mks)
 - c. Write a short note on Animal euthanasia (3mks)
 - d. Give account of the main biotic factors that affect animal population growth (8mks)