



**NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91 CADASTRAL ZONE, NNAMDI AZIKIWE
EXPRESS WAY, JABI - ABUJA.
FACULTY OF SCIENCE
Department of Biological Sciences
2025_1 EXAMINATION**

BIO 313: ANIMAL ECOLOGY

TIME: 2Hours

CREDIT UNITS: 2

INSTRUCTION: Answer THREE (3) questions in all. Question 1 is compulsory

1a: Explain the concept of intraspecific competition and its effects on animal populations, providing specific examples. (10 marks)

1b: Discuss the concept of interspecific competition and how it influences species interactions and community structure, providing examples. (10 marks)

1c: Discuss the concept of population cycles in ecology, including the factors that can influence these cycles, and provide specific examples. (10 marks)

2a: Discuss the factors that can disrupt population cycles in a predator-prey system, providing specific examples. (10 marks)

2b: Explain the role of African Bats in ecosystem functioning, focusing on their ecological services. (10 marks)

3a: Discuss the significance of age structure in animal populations and how it influences population dynamics, providing examples. (10 marks)

3b: Explain the different methods used to measure population density in animal populations, providing examples. (10 marks)

4a: Discuss the ecological roles of aquatic animals in maintaining ecosystem balance, providing specific examples. (10 marks)

4b: Explain the different types of adaptations terrestrial animals have developed to survive in their environments, providing specific examples. (10 marks)

5a: Discuss the outcomes of competition in animal communities, including resource partitioning and competitive exclusion, with examples. (10 marks)

5b: Explain the concept of key-factor analysis in ecology and its significance in understanding population dynamics. (10 marks)