



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
DEPARTMENT OF BIOLOGICAL SCIENCES
2024 1 EXAMINATION

COURSE CODE: BIO 313

COURSE TITLE: ANIMAL ECOLOGY

CREDIT UNIT: 3 Units

TIME ALLOWED: 3 Hours

INSTRUCTION: Answer Question ONE (1) and any other THREE (3) Questions

1. (a) Explain the relationship between habitat and ecological niche. (5 marks)
(b) Discuss the population growth patterns. (10 marks)
(c) Discuss amphibious animals with reference to their adaptive and behavioural features. (7 marks)
(d) State the usefulness and relevance of Lotka-Volterra models. (3 marks)
2. (a) Discuss the biology and ecological adaptation of Snakes. (8 marks)
(b) Outline the three types of survivorship curves. (7 marks)
3. In a tabular form, state the differences and similarities between megabat and microbat. (6 marks)
(b) Describe each of the following symbiotic relationship with at least one example.
(i) Parasitism (3 marks)
(ii) Mutualism (3 marks)
(iii) Commensalism (3 marks)
4. (a) Describe the biology and ecological adaptation of Giraffes (*Giraffa* sp.). (4 marks)
(b) Explain population density. (4 marks)
(c) Explain population cycle using grouse, hares, and voles predator-prey interaction.
5. (a) Describe J-shaped and S-shaped growth forms with appropriate diagram. (7 marks)
(b) Briefly describe the biology and ecological adaptation of Hippopotamus. (3 marks)
(c) Enumerate five (5) reasons for studying behavioural ecology. (5 marks)
6. (a) Discuss life table with emphasis on the methods of construct and applications. (7 marks)
(b) Write short notes on bat habitats. (4 marks)
(c) What are terrestrial birds? (4 marks)