NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
DEPARTMENT OF BIOLOGICAL SCIENCES
2024_2 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) Write short notes on static (vertical) life table based on mortality records. **(3 marks)**
   (b) Explain behavioural adaptations in bats. **(7 marks)**
   (c) What are the roles of ecologists? **(5 marks)**
   (d) Describe the carangid species found in Nigerian waters with emphasis on *Caranx* spp. and *Chloroscombrus chrysurus*. **(10 marks)**

2. (a) Discuss competition among populations. **(10 marks)**
   (b) Compare and contrast between Bobo croaker (*Pseudotolithus elongates*) and Longneck croaker (*Pseudotolithus typus*). **(5 marks)**

3. (a) Write an ecological notes on penaeid shrimps in Nigeria. **(10 marks)**
   (b) Discuss gravity as an abiotic factor that influences an ecosystem. **(5 marks)**

4. (a) Write short notes on bats. **(6 marks)**
   (b) Explain the concept of r/k selection theory. **(5 marks)**
   (c) Explain the contribution of Jennifer Borgo to behavioural ecology. **(4 marks)**

5. (a) In tabular form, highlight six (6) differences in survivorship strategies between Type I and Type III. **(9 marks)**
   (b) State the two important assumptions of static life tables. **(2 marks)**
   (c) Explain behavioural ecology in animal using optimization theory. **(4 marks)**

6. (a) Differentiate between Semelparous life cycle and iteroparous life cycle . **(4 marks)**
   (b) Explain migration as a phenomenon in birds. **(8 marks)**
   (c) Describe how optimal behaviour favours natural selection in animals. **(3 marks)**