

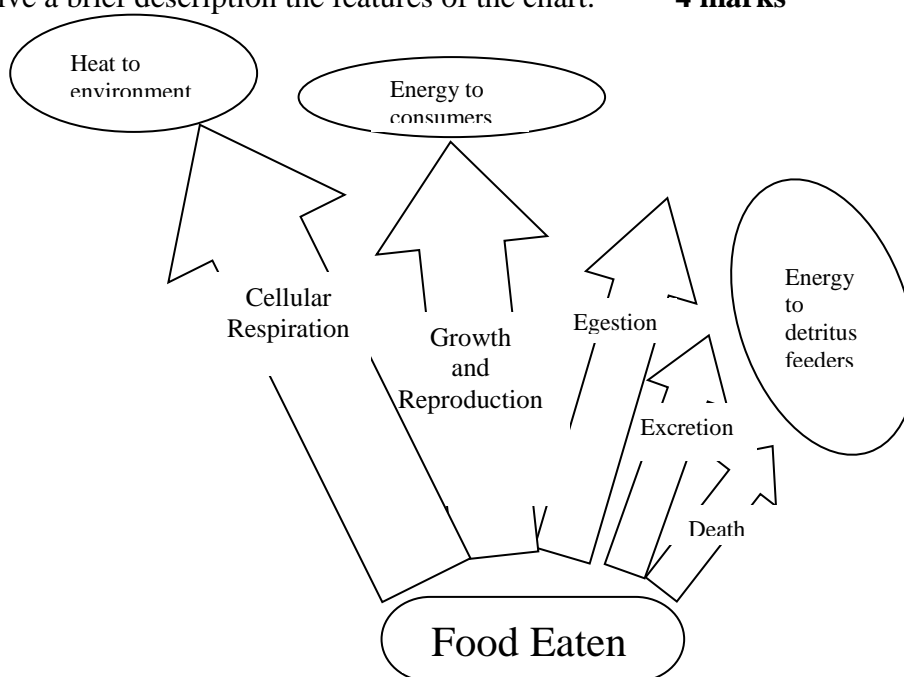


NATIONAL OPEN UNIVERSITY OF NIGERIA
National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
DEPARTMENT OF PURE AND APPLIED SCIENCE
OCTOBER/NOVEMBER, 2019 EXAMINATION

COURSE TITLE: ANIMAL ECOLOGY
COURSE CODE: BIO 313
CRDIT UNIT: 2
TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS

- 1ai. What does the Figure below signify? **1 mark**
ii. Give a brief description the features of the chart. **4 marks**



- b. Discuss the **Four** abiotic factors that affect population growth. **6 marks**
c. Summarise the main types of symbiotic relationships in a table listing the type of relationship and the expected outcomes. **6 marks**
d. Succinctly, write on interspecific competition. **8 marks**

2a. Distinguish between the following terms:

- i. Ecosystem and Ecology **3 marks**
ii. Composition and diversity **2 marks**

- iii. Habitat and ecological niche **2 marks**
- b. Describe any **four** criteria for determining the number of factors in factor analysis. **8marks**
- 3ai. Define animal population control. **2 marks**
ii. What is behavioural ecology? **2 marks**
- b. Using appropriate graphs (**3 marks**), explain how competition can lead to:
i. Extinction **4 marks**
ii. Resource partitioning **4 marks**
- 4a. What is optimization theory in ecology? (**6 marks**)
b. Illustrate this concept using a typical ectotherm such as the lizard (**9 marks**)
- 5a. What is population ecology? **2marks**
b. Environment and human have changed the scope of many animals. Discuss **5marks**
c. Concisely, write on the habitat (**3 marks**) and feeding of olive ridley turtle **5marks**