

## NATIONAL OPEN UNIVERSITY OF NIGERIA FACULTY OF AGRICULTURAL SCIENCES DEPARTMENT OF ANIMAL SCIENCE & FISHERIES

**Examination Questions:** January, 2018

Course Title: BIO-RESOURCE MANAGEMENT (3 Credit Unit)

Course Code: AGB 404

Instructions: Total marks = 70. Question 1 is compulsory (30

marks), then answer any other 4 out of the 6 that

follow (10 marks each).

Time Allowed: 2 ½ hours

- 1(a) Define term "germplasm". (5 marks)
- (b) What is bio-resource management? (6 marks)
- (c) List five conservation agencies in Nigeria. (5 marks)
- (d) What does the convention on biological diversity commit countries to? (6 marks)
- (e) Distinguish between In-situ and Ex-situ approach to biodiversity management. (8 marks)
- 2(a) Define the term biodiversity. (4 marks)
- (b) Write short notes on the levels of biodiversity. (6 marks)
- 3(a) What are the factors that determine the status and structure of an ecosystem? (3 marks)
- (b) What determines the uniqueness of an ecosystem? (3 marks)
- (c) What does variation observed in an ecosystem reflect? (4 marks)
- 4(a) Give example of three of the following stating their common and scientific names:  $(4\frac{1}{2} \text{ marks})$
- i)local legumes,
- ii)local fruits,
- iii)local cereals.
- (b) What determines the flora and fauna diversity? (4 marks)

- (c) How can the web of life be sustained? (1½ marks)
  5 Discuss in detail the place of bio- diversity in relation to the following: (10 marks)
  (a) Food and Shelter
  (b) Environmental maintenance,
  (c) Agriculture,
  (d) Forest products.
- 6(a) What is genetic erosion? (3 marks)
- (b) Discuss in detail the causes of genetic erosion.(7 marks)
- 7 (a) What are the major objectives of a plant biotechnology programme? (5 marks)
  - (b) What are the major benefits of using biotechnology in forestry? (5 marks)