



**National Open University Of Nigeria**  
**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**  
**Faculty of Science**  
**JANUARY/FEBRUARY, 2018 EXAMINATION**

COURSE CODE: BIO 304 (2 CREDIT UNITS)    TIME ALLOWED: 2HOURS

COURSE TITLE: GENERAL ECOLOGY

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

- 1a     What is the significance of primary productivity? **(3marks)**
- 1b     Outline and discuss the major biotic components of an ecosystem **(9 Marks)**
- 1c     Identify the functional components of a named ecosystem, and describe how they interact to form environmental system. **(9 Marks)**
- 1d     In a single sentence describe how living organisms use energy **(4 Marks)**
  
- 2a     Identify the principal steps in the operation of an ecosystem **(5marks)**
- 2b     List and describe any three ways for the presentation of demographic data **(10 Marks)**
- 3a     Outline any three human activities that can improve the quality of the ecosystem from conservation point of view **(3 Marks)**
  
- 3b     Briefly, explain each of the following
  - i       Habitats **(2 Marks)**
  - ii      Niches **(2 Marks)**
  - iii     Food chain **(2 Marks)**
  - iv      Web **(2 Marks)**
  - v       Trophic levels **(2 Marks)**
  - vi      Pyramid of numbers **(2 Marks)**
  
- 4a     What is primary productivity **(4 Marks)**
- 4b     List and explain the different life processes taking place within the eco-system **(6 Marks)**
- 4c     Briefly describe how the unidirectional energy flow in eco-system takes place **(5 Marks)**
- 5a     Enumerate the significance of primary productivity in an ecosystem **(4 Marks)**
- 5b     List any two positive and negative Interactions between biotic communities **(6 Marks)**
- 5c     List the major steps required to address environmental problems of concern **(5 Marks)**