

**National Open University Of Nigeria**

**Plot 91, Cadastral Zone, NnamdiAzikiwe 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 **(9Marks)**

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)**