



NATIONAL OPEN UNIVERSITY OF NIGERIA

14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS

SCHOOL OF SCIENCE AND TECHNOLOGY

MARCH/APRIL 2015 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO 304

COURSE TITLE: GENERAL ECOLOGY

TIME ALLOWED: 2 Hours

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

1a. It is important to sustain the earth's biodiversity. Discuss. (6 marks)

b. Describe the components of a human population pyramid. (7 marks)

c. Write **short notes** on the following:

(i) Territories (4 marks)

(ii) Population lifetables (4 marks)

(iii) Denitrification (4 marks)

2. Enumerate the world's major environmental problems and suggest how they could be tackled. (15 marks)

3a. Humans are considered to be the initiators of secondary succession. Discuss. (8 marks)

b. Give a detailed description of the structure of a community. (7 marks)

4a. Outline the damages caused by acid rain. (3 marks)

b. Write **short notes** on the following:

(i) Nitrogen fixation (4 marks)

(ii) Pyramid of numbers (4 marks)

(iii) Community (4 marks)

5a. List the primary reservoirs for the chemicals in the biogeochemical cycles?

b. Distinguish between the following:

(i) a habitat and a niche (3 marks)

(ii) autotrophs and heterotrophs (3 marks)

(iii) gross primary productivity and net primary productivity (3 marks)

(iv) Density-dependent and density-independent factors of population regulation (3 marks)

6a. List some special adaptations desert plants and animals have developed. (5 marks)

b. With the aid of a well labeled illustration, describe the carbon cycle. (10 marks)

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