



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ENVIRONMENTAL SCIENCE

DES/17S/YEAR 1/ SEMESTER 1

AES 2102: SURVEY OF PLANT & ANIMAL KINGDOM

SPECIAL/ SUPPLEMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions

This paper consists of two printed pages.

Mobile phones are NOT allowed in the examination room

Question one

- a) Define the following terms;
- i. Ecology (2 marks)
 - ii. Ecosystem. (2 marks)
 - iii. Niche. (2 marks)
- b) Heterotrophs can be further sub-divided into different functional groups. Explain. (4 marks)
- c) Differentiate between;
- i. Migration and dispersal (4 marks)
 - ii. Food chain and food web (4 marks)
 - iii. A trophic level and pyramid of numbers (4 marks)
- d) Outline the characteristics of a population found in an ecosystem (4 marks)
- e) State the major essential abiotic components of an ecosystem (4 marks)

Question two

- a) Citing appropriate examples define the following categories of species (9 marks)
- i. Autotrophs
 - ii. Heterotrophs
 - iii. Detritivores
- b) Define decomposition and briefly explain its importance to the ecosystem (6 marks)

Question three

- a) Briefly describe the importance of forest ecosystems. (7 marks)
- b) Describe the threats facing forest ecosystems in Kenya today. (8 marks)

Question four

Discuss Freshwater and wetland ecosystems under the following headings

- a) Their importance (5 marks)
- b) Threats that they currently face (5 marks)
- c) Measures to conserve them (5 marks)

Question five

Discuss the factors that drive dynamism of ecosystems (15 marks)