



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR IN ENVIRONMENTAL SCIENCES

ENS 136: PRINCIPLES OF ENVIRONMENTAL SCIENCE

DATE: 23/7/2019

TIME: 8.30-10.30 AM

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## INSTRUCTIONS:

Answer question ONE and any other TWO questions

### QUESTION ONE (30 MARKS)

- a) Explain the meaning of the following terms
- i. Biosphere (2 marks)
  - ii. Environmental Science (2 marks)
  - iii. Food chain (2 marks)
  - iv. Sustainable development (2 marks)
- b) Explain the different segments of the earth's environment (16 marks)
- c) Explain the causes and impacts of acid rain to the environment (6 marks)

### QUESTION TWO (20 MARKS)

- a) Discuss three major environmental challenges in Kenya and indicate how the government is addressing them (12 marks)
- b) Explain the importance of environmental science to the society (8 marks)

### QUESTION THREE (20 MARKS)

Explain the causes and impacts of global warming in Kenya

**QUESTION FOUR (20 MARKS)**

Using diagrammatic illustrations, explain the hydrological cycle

**QUESTION FIVE (20 MARKS)**

- a) Explain the biotic components of an ecosystem of your choice (12 marks)
- b) Explain two factors that influenced the growth of environmental movements (8 marks)