



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES

CERTIFICATE IN ELECTRICAL POWER AND ENGINEERING
(CEPE II)

AES 1112: ENVIRONMENTAL STUDIES

SEMESTER: EXAMINATIONS

SERIES: DECEMBER 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 3 PRINTED pages

QUESTION ONE

- a) Define the following concepts:
 - (i) Environmental protection (1 mark)
 - (ii) Environmental preservation (1 mark)
 - (iii) Waste management (1 mark)
 - (iv) Pollutants (1 mark)
 - (v) Energy (1 mark)
- b) (i) With examples, identify TWO types of energy resources (2 marks)
(ii) Explain any TWO significance of energy (2 marks)
- c) (i) Describe the functions of the atmosphere (3 marks)
(ii) Explain how Air pressure influence wind movement (4 marks)
- d) (i) Differentiate between degradable pollutants and non-degradable pollutants (2 marks)
(ii) Outline TWO ways of Air pollution control (2 marks)
- e) (i) Describe the attraction force of e-wastes (4 marks)
(ii) Explain the concept of 3Rs in relation with the e-waste management (2 marks)
- f) (i) Justify why the Kenyan learning institutions should train environmental studies (2 marks)
(ii) Explain the applicability of precautionary principle (2 marks)

QUESTION TWO

Production, transformation and transportation of energy has significant impact on environment

Discuss (15 marks)

QUESTION THREE

- a) Discuss the impacts of climate change in Kenya (9 marks)
- b) With appropriate examples, describe measures that can be used to control global warming (6 marks)

QUESTION FOUR

Elaborate on the following waste management methods:

- a) Landfill (5 marks)
- b) Incineration (5 marks)
- c) Recycling (5 marks)

QUESTION FIVE

- a) Explain the effects of the following air pollutants
- (i) Carbon monoxide **(3 marks)**
 - (ii) Carbon dioxide **(3 marks)**
 - (iii) Oxides of sulphur **(3 marks)**
- b) Discuss sources of water pollution **(6 marks)**