

TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN RENEWABLE ENERGY (BTRE13S) SEMESTER II

AES 4342 ENVIRONMENTAL POLLUTION STUDIES AND CONTROL

SERIES: APRIL/MAY 2016

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.

Question One (Compulsory)

- a. Define the following terms (5 marks)
 - i. Pollution prevention
 - ii. Pollution control
 - iii. Thermal pollution
 - iv. Nuclear pollution.
 - v. Visual pollution
- b. Outline four (4) features of water pollution discharge mixing zones (4marks)
- c. Describe four (4) sources of underground water pollution. (4marks).
- d. Give four categories of specific pollutants in underground water contamination. Indicate one example in each category (4marks).
- e. Explain the meaning of 3Rs in waste management (3marks).
- f. Give the general characteristics of environmental pollutants. (3marks).
- g. Explain the parameters that influences pollutants dispersion (2marks)
- h. Describe the natural ways by which pollutants are removed from the atmosphere. (2marks).
- i. Outline three measures factories can take to control air pollution (3marks).

Question Two

Discuss the various environmental pollution problems faced by the contemporary World and their mitigation measures. (20marks).

Question Three

Using a well labeled diagram, describe industrial waste-water treatment process. (20marks)

Question Four

Discuss sources and fates of various forms of environmental pollutants. **(20marks)**.

Question Five

- a. Using an illustration, describe the greenhouse effect **(5marks)**
- b. Discuss the environmental and human health threats of climate change. **(15marks)**.