

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)**.