



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN CIVIL
ENGINEERING (BSCE)

ECE 2519: ENVIRONMENTAL ENGINEERING

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Answer question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions from section **B**

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

SECTION A

Question One (Compulsory)

- a) (i) Outline **FOUR** adverse effects of deforestation. **(8 marks)**
- (ii) Briefly describe **THREE** core values on which the EIA process is based. **(9 marks)**

- b) Briefly explain the conditions necessary for the development of a cyclone (6 marks)
- c) Briefly describe **THREE** systemic obstacles to Effective Global Environmental policy. (4marks)

SECTION B (Attempt any TWO questions)

Question Two

Discuss the disaster management process and how it affects people, property and infrastructure. (20 marks)

Question Three

- a) Outline **FOUR** effects of Acid Rain on infrastructure. (4 marks)
- b) Briefly discuss Nuclear Energy as an alternative to Hydro-electric power generation in Kenya. (16 marks)

Question Four

- a) Identify **FOUR** major mitigation measures to reduce earthquake risk. (10 marks)
- b) Outline **FIVE** phenomena associated with global environmental change (10 marks)

Question Five

- a) Describe any **FIVE** effects of Air Pollution to mankind and Engineering Structures. (10 marks)
- b) Briefly outline **FOUR** measures that make the EIA process transparent, accessible and accountable to the public. (10 marks)