



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN CIVIL ENGINEERING
(BSCE – 5TH YEAR)

ECE 2519: ENVIRONMENTAL ENGINEERING

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2014

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)** and any other **TWO** questions

All questions carry equal marks

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (COMPULSORY)

- a) Describe the following types of pollution, their causes and control:
- (i) Thermal pollution
 - (ii) Soil pollution
 - (iii) Radiation pollution
 - (iv) Marine pollution
- (12 marks)**
- b) Briefly explain any **FOUR** problems of global environmental change. **(8 marks)**
- c) Explain the following terms as used in Environmental Impact Assessment (EIA)
- (i) Screening

- (ii) Scoping
 - (iii) Mitigation
 - (iv) Impact Assessment
 - (v) Reviewing
- (10 marks)**

Question Two

Briefly describe the following international regimes in Global Environmental Policy: **(20 marks)**

- a) The hazardous waste regime
- b) The global biodiversity regime
- c) Climate change regime
- d) Toxic chemicals regime

Question Three

a) With the aid of a flow chart illustrate the steps involved in the EIA process. **(10 marks)**

b) Outline FIVE categories of Natural Disasters. **(10 marks)**

Question Four

Briefly explain the following characteristics of the world's environment as it becomes fragile and degraded:

- a) The policy divide
 - b) The vulnerability gap
 - c) The lifestyle divide
 - d) The environmental divide
- (20 marks)**

Question Five

a) Outline the FOUR phases involved in Disaster Management. **(8 marks)**

b) Briefly explain any SIX factors that cause environmental Degradation. **(12 marks)**