



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT BUILDING AND CIVIL ENGINEERING

**UNIVERSITY EXAMINATION FOR:**

**BSC IN CIVIL ENGINEERING**

**ECE 2519: ENVIRONMENTAL ENGINEERING**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: 17 May 2016**

## **Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, Drawing Instruments, Scientific calculator, examination pass and student ID*

This paper consists of five questions. Attempt question ONE (Compulsory) and any other TWO questions.

## **QUESTION ONE [30 Marks]**

- a) Discuss the classification of air pollution **[5 marks]**
- b) Discuss the sources, effects and control of carbon monoxide. **[10 marks]**
- c) Discuss remedial measures for controlling water pollution. **[8 marks]**
- d) Discuss the harmful effects of acid rain. **[7 marks]**

**QUESTION TWO [20 marks]**

- a) Discuss the sources of marine pollution. **[5marks]**
- b) Discuss the effects of oil pollution on marine ecosystem. **[5marks]**
- c) Discuss the causes and effects of global warming. **[10 marks]**

**QUESTION THREE [20 marks]**

- a) Describe the six classes of natural disasters. **[3 marks]**
- b) Discuss the human response to flooding protection. **[10 marks]**
- c) Discuss policies and governance for drought risk reduction. **[7 marks]**

**QUESTION FOUR [20 marks]**

- a) Discuss causes and effects of deforestation. **[10 marks]**
- b) Discuss global environmental conservation policies. **[5 marks]**
- c) Describe the main objectives and scope of environmental science in respect to protection and conservation of our environment. **[5 marks]**

**QUESTION FIVE [20 marks]**

- a) Discuss the primary needs of sustainable development. **[4 marks]**
- b) In line with Agenda 21, discuss guidelines for achieving sustainable development. **[8 marks]**
- c) Explain why sustainable development is considered as environment's safe guard. **[2 marks]**
- d) Define environmental audit and state its goals. **[6 marks]**