



# **TECHNICAL UNIVERSITY OF MOMBASA**

*Faculty of Applied & Health Sciences*  
**DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES**

DIPLOMA IN ENVIRONMENTAL SCIENCES  
(DES 12 S)

**AES 2212**  
**LAND USE AND LAND USE CHANGE**

END OF SEMESTER EXAMINATIONS  
**SERIES:** APRIL, 2014  
**TIME:** 2 HOURS

**INSTRUCTIONS TO CANDIDATES:**

-Answer **ALL** questions in section **A** and any **TWO** questions in section **B**  
This paper consists of **2 PRINTED** pages

## SECTION A: ( COMPULSORY)

### QUESTION ONE

- (a) Define the term land use change. (2 marks)
- (b) State and briefly explain **THREE** functional characteristics of ecosystems. (5 marks)
- (c) State and explain **TWO** obstacles to accurately describing land use/land cover changes (4 marks)
- (d) Describe **THREE** types of human-caused land-use change and how they affect carbon storage and/or release. (5 marks)
- (e) Define the term land use. (2 marks)
- (f) State at least **FIVE** direct effects of land use change. (5 marks)
- (g) Human beings are the “ecological dominants”. Explain what you understand by this term in the context of land use. (5 marks)
- (h) Define a habitat. (2 marks)

### SECTION B: (Answer any **TWO** questions from this section)

### QUESTION TWO

Discuss the impacts of human beings on the following:- (15 marks)

- (i) Water resources
- (ii) Soils
- (iii) Air quality
- (iv) Human health
- (v) Flora and Fauna.

### QUESTION THREE

ABC Limited is a food processing industry. The company is proposing to expand as such intends to clear a portion of the nearby forest to establish another processing unit. The effluent from the industry is discharged to a nearby stream and the company products are transported to its clients via the road.

As an environmental student, discuss all the possible impacts of this type of land use change and suggest appropriate mitigation measures. (15 marks)

### QUESTION FOUR

With reference to urban areas, assess the impact of urban growth upon the physical environment.

(15

marks)

### QUESTION FIVE

Discuss the changing nature of the relationship between rural and urban areas.

(15 marks)