

# TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied & Health Sciences

Department of Environment & Health Sciences

University Examination for the Degree of Bachelor of Science in Marine Resource  
Management

BSMR 13S/YEAR 3/SEMESTER 2

Code: AES 4307: Climate change impacts and interventions

SEMESTER EXAMINATION

SERIES: MAY/2016

TIME: 2HRS

## **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

- a) Briefly explain the following concepts
  - i. Upwelling process (2 mks)
  - ii. Enhanced Greenhouse Effect (2 mks)
  - iii. Mitigations (2 mks)
  - iv. Adaptation (2 mks)
  - v. Albedo (2 mks)
- b) What is Electromagnetic Energy Transfer? Identify and explain TWO forms of radiations (5 mks)
- c) Explain why the United States and European countries view climate change as a necessary evil. (5 mks)
- d) "Think globally, act locally" briefly explain the application of this concept on global warming reduction (5 mks)
- e) Identify the FIVE components of the climate system (5 mks)

## QUESTION TWO

- a) What is the Global Air Circulation System? Briefly explain Four factors affecting the global air circulation system (10 mks)
- b) Discuss any TWO Global Air Circulation Cells (10 mks)

## QUESTION THREE

- a) Discuss the impacts of climate change in agriculture (20 mks)

## QUESTION FOUR

Coastal forests are important natural resources that support diversity of species and attract foreign exchange to Kenya. Discuss the adaptation measures that the coastal community need to engaged on to protect it from climate change impacts (20 mks)

## QUESTION FIVE

- a) What is Green Mechanisms in climate change mitigation? With examples, explain four types of green mechanisms (10 mks)
- b) Highlight FIVE issues that are likely to impact the coastal community as a result of climate change (10 mks)