



MACHAKOS UNIVERSITY

University Examinations For 2023/2024 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR

BACHELOR OF SCIENCE IN COMMUNITY RESOURCE MANAGEMENT

ERC 210: CLIMATE CHANGE AND RESOURCES MANAGEMENT

DATE: _____ **TIME:** _____

INSTRUCTIONS: Answer question ONE and any other TWO

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the following terms:
- (i) Climate change fingerprinting (2 marks)
 - (ii) Climate change mitigation (2 marks)
 - (iii) Microclimates (2 marks)
 - (iv) Greenhouse effect (2 marks)
 - (v) Global warming (2 marks)
- b) Describe the five major components of a climate system. (10 marks)
- c) Explain how Kenyan local communities can benefit from carbon trading activities. (10 marks)

QUESTION TWO (20 MARKS)

Describe five climate groups according to Köppen climate classification system.

QUESTION THREE (20 MARKS)

Assuming that the Kenyan Government wants to initiate a programme on climate change, discuss the human-related causes of climate change which such a programme can target.

QUESTION FOUR (20 MARKS)

Discuss the various coping strategies which local communities can use to adapt to climate change crisis in the Kenyan agricultural sector.

QUESTION FIVE (20 MARKS)

Discuss the impacts of climate change on water resources in Kenya.