



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (AGRIBUSINESS MANAGEMENT)

AGR 483:CLIMATE CHANGE AND AND ADAPTATION IN AGRICULTURE

DATE: 18/01/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Differentiate between the following
- i. Mitigation and adaptation (4 marks)
 - ii. Climate change and climate variability (4 marks)
- b) “Africa is one of the most vulnerable regions in the world to climate change.”
- i. Discuss two factors contribute to this? (4 marks)
 - ii. Discuss FOUR IMPACTS of climate change on agriculture in Kenya (8 marks)
- c) Discuss using diagrams the two main processes that influence temperature and rainfall on earth (10 marks)

QUESTION TWO (20 MARKS)

Discuss why Clean Development Mechanism has so far been successful as an instrument of financing climate change adaptation and mitigation in agriculture and what lessons we can learn from its pitfalls

QUESTION THREE (20 MARKS)

Using local examples, discuss the individual elements of vulnerability to climate change in the agricultural sector

QUESTION FOUR (20 MARKS)

Using examples from your home county, discuss adaptation strategies that are employed to deal with disasters caused and exacerbated by in Kenya

QUESTION FIVE (20 MARKS)

Using one example, critically analyse the challenges would face regarding climate change adaptation in transboundary water basins management on an international scale