



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL SCIENCES
SECOND YEAR SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)
BACHELOR OF ENVIRONMENTAL STUDIES AND COMMUNITY DEVELOPMENT
BACHELOR OF ENVIRONMENTAL SCIENCE
ENS 242: GLOBAL WARMING AND CLIMATE CHANGE
ERC 210: GLOBAL WARMING AND CLIMATE CHANGE
ECD 209: CLIMATE CHANGE AND COMMUNITY LIVELIHOODS

DATE: 23/9/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS: Answer question ONE and any other TWO questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Differentiate the following terms:
- i) Weather and climate (4 marks)
 - ii) Mitigation and adaptation (4 marks)
 - iii) Resilience and vulnerability (4 marks)
 - iv) Greenhouse effect and ozone Layer depletion (4 marks)
- b) List FOUR (4) greenhouse gases (4 marks)
- c) Africa is one of the most vulnerable regions in the world to climate change.
- i) Explain FOUR impacts of climate change in agricultural sector in Kenya (4 marks)

- ii) Explain THREE factors that contribute to this (6 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the mitigation and adaptation measures employed to address climate change in Arid and Semi-arid Lands (10 marks)
- b) Describe the challenges faced in mitigation and adaptation measures to climate change in Kenya (10 marks)

QUESTION THREE (20 MARKS)

- a) State any SIX expected outcomes of the Climate Change Bill, 2016 in Kenya (12 marks)
- b) Explain FOUR actions that are needed by the Kenya government to operationalize climate change Bill, 2016 (8 marks)

QUESTION FOUR (20 MARKS)

- a) Explain the reasons why the Kyoto Protocol is considered as a milestone in the politics of climate change (6 marks)
- b) Describe the TWO difference between Kyoto Protocol and REDD+ (4 marks)
- c) Describe FIVE (5) actions that Parties to REDD+ are encouraged to undertake to ensure success of the initiative (10 marks)

QUESTION FIVE (20 MARKS)

Discuss the different climate change scenarios that can be found under:

- a) Special Report on Emissions (10 marks)
- b) Relative Concentration Pathways (RCPs) (10 marks)