



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year
SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT
DEPARTMENT OF ENVIRONMENTAL SCIENCES
SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR
BACHELOR IN ENVIRONMENTAL SCIENCES
ENS 242: CLIMATE CHANGE AND GLOBAL WARMING

DATE: 27/9/2019

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Define the following terms:
- i. Weather (2 marks)
 - ii. Climate (2 marks)
 - iii. Climate change (2 marks)
 - iv. Climate Variability (2 marks)
 - v. Resilience (2 marks)
 - vi. Vulnerability (2 marks)
- b) Explain what you understand of the following terms
- i. Water Cycle (4 marks)
 - ii. The Greenhouse Effect (4 marks)
- c) Name the TWO (2) key policy/legislative documents for combating climate change in Kenya (4 marks)
- d) Africa is one of the most vulnerable regions in the world to climate change.
- i. What two factors contribute to this? (4 marks)
 - ii. Name any TWO impacts of climate change in Kenya (2 marks)

QUESTION TWO

Discuss how climate change directly and indirectly impacts women more than men. (20 marks)

QUESTION THREE

- a) Discuss the mitigation and adaptation measures to climate change employed in any human activity/sector (10 marks)
- b) Discuss the constraints to and opportunities arising from these measures in 2a (10 marks)

QUESTION FOUR

- a) State TWO (2) differences between the Kyoto Protocol and REDD+ (4 marks).
- b) Why is the Kyoto Protocol considered as milestone in the politics of climate change? (1 mark)
- c) What does the acronym REDD+ represent? (5 marks)
- d) What FIVE (5) actions are the Parties to REDD+ encouraged to undertake to ensure the success of the initiative? (10 marks)

QUESTION FIVE

- a) Explain SIX expected outcomes of the Climate Change Act 2016 (12 marks)
- b) Now that it has become law, what FOUR key actions does the Kenya government need to make Climate Change Bill operational? (8 marks)