



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021

CONTINUING EDUCATION PROGRAMME (CEP) DECEMBER 2020 SESSION

EXAMINATION FOR THE DEGREE OF

MASTER OF SCIENCE (CLIMATE CHANGE AND SUSTAINABILITY)

EED 823: CLIMATE CHANGE MITIGATION AND ADAPTATION

DATE: Thursday, 8th April 2021

TIME: 2.00 p.m. - 5.00 p.m.

INSTRUCTIONS:

Answer question ONE and any other Four

1.
 - (a) Briefly explain the concept of climate change mitigation and adaptation. (2 marks)
 - (b) Explain how the following factors contribute to climate change around the world and how Environmental Education can mitigate these factors. (3 marks)
 - (i) Biodiversity loss
 - (ii) Current life styles
 - (iii) Wetlands and mountain degradation.
 - (c) Arabuko Sokoke Forest in Kenya is known for high endemism in many species which include; mammals, birds, snakes and butterflies. Name five of these species (one from each group) and explain how this knowledge can influence the local communities to participate positively in local climate mitigation measures. (5 marks)
 - (d) Explain briefly how the knowledge of three EE objectives in Tbilisi Declaration can influence a farming community in a country like Kenya to mitigate against climate change effects in their environment in the current changing climate. (3 marks)
 - (e) State three ecosystem services provided by a marine ecosystem and briefly explain how this knowledge can influence a local community to participate in a marine rehabilitation programme to mitigate and adapt against climate change in a local content. (3 marks)

- (f) "It is advisable to live green." Explain briefly how the global family can benefit from the said scenario in the current changing climate. (3 marks)
- (g) Someone who led "bird extinction analysis" has stated that birds cannot adapt to the current changing world." Discuss the statement citing a few examples from Kenya "why you may or may not" support this person. (3 marks)
2. Discuss critically with suitable examples why International Conventions and protocols on climate change can be effective tools for natural resource conservation and climate change mitigations and adaptations. (12 marks)
3. Using suitable examples, explain how indigenous knowledge systems has contributed to natural resource conservation in Kenya to mitigate and adapt against climate change effects. (12 marks)
4. Using environmental centers like botanical gardens, National parks, important bird areas and heritage sites which are found in Kenya, discuss how Environmental Education taught at higher institutes of learning can help local communities to adapt and mitigate against climate change in their environment. (12 marks)
5. Name three development technologies which can be related to climate change adaptations and mitigations and explain how environmental education can help to mitigate climate change effects where these technologies are practiced. (12 marks)
6. "Protected Areas are natural solutions to climate change adaptations and mitigations." Discuss the statement using local examples. (12 marks)
7. (a) Define the following terms used in climate change scenarios: (4 marks)
- (i) climate change vulnerability
 - (ii) climate change resilience
 - (iii) adaptation strategies
 - (iv) adaptive capacity
- (b) Briefly discuss the consequences of climate change on the planet's four named ecosystems. (8 marks)