

The Co-operative University of Kenya

END OF SEMESTER EXAMINATION DECEMBER-2018

EXAMINATION FOR THE DEGREE OF BACHELOR OF CO-OPERATIVE DEVELOPMENT & SUSTAINABLE DEVELOPMENT

UNIT CODE: CODM 2206

UNIT TITLE: CLIMATOLOGICAL BASIS OF DISASTER MANAGEMENT

DATE: DECEMBER, 2018

TIME:

INSTRUCTIONS:

- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE

- (a) Differentiate between
- Hydrosphere and Biosphere (3 marks)
 - Climate and weather (3 marks)
 - Disaster and hazards (3 marks)
- (b) Explain the term electromagnetic spectrum (EMS) (3 marks) I
(ii) Highlight FIVE major components of the EMS giving their environmental importance (5 marks)
- (c) Describe in your own word the relationship between climate and disaster (3 marks)
- (d) Name FOUR natural disasters caused by climate extremities (2 marks)
- (e) With appropriate illustrations, explain how green house effect leads to global warming (4 marks)
- (f) It has been said that flooding is a major disaster increasingly facing Kenya, highlight THREE methods of mitigating flood disaster risks (4 marks)

QUESTION TWO

- (a) Using a diagram illustrate the major differentiation of the atmosphere and their importance on weather patterns and climate (10 marks)
- (b) Explain THREE environmental consequences of climate change (10 marks)

QUESTION THREE

- (a) Define a hydrological cycle (5 marks)
- (b) Using a diagram, illustrate the hydrological cycle system and explore why cycle is critical for our climate systems (15 marks)

QUESTION FOUR

- (a) Explain the terms energy budget (5 marks)
- (b) Using a diagram, explain the solar energy budget and how atmospheric systems affect the quality and quantity of the sun's radiation to the Earth (15 marks)

QUESTION FIVE

- (a) Explain and describe the factors affecting climate and how they can be used to explain the different climatic conditions experience between Nairobi and Mombasa (20 marks)