



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

FIRST YEAR FIRST SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN CLIMATE CHANGE AND SUSTAINABLE
DEVELOPMENT (DMSD)**

COURSE CODE: DSC 111

COURSE TITLE: INTRODUCTION TO CLIMATOLOGY

DATE: 15/12/2023

TIME: 8-10 A.M

INSTRUCTIONS TO CANDIDATES

This Paper contains FOUR Questions. Answer Question **ONE** and any other two Questions.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over. 

QUESTION ONE

- a). Explain the following terms as used in climatology:
- i). Temperature fluctuation [1 Marks]
 - ii). Deforestation [1 Marks]
 - iii). Global warming [2 Marks]
 - iv). Carbon sinks [2 Marks]
 - v). Evaporation [2 Marks]
 - vi). Drought [2 marks]
- b). Explain the term climate. [4 Marks].
- c). Explain the difference between weather and climate [6 Marks].
- d). How do weather observations become climate data? [6 Marks]
- e). What are greenhouse gases [4 Marks]

QUESTION TWO

- i). Explain the sources of anthropogenic greenhouse gas emissions [8 Marks]
- ii). Explain the term climate variability. [6 Marks]
- iii). Explain how global warming affects the earth's climate system? [6 marks].

QUESTION THREE

- i). Explain how the process of raising livestock for meat and dairy products affect climate change. [8 Marks]
- ii). How is global warming related to severe weather events like storms, heat waves and droughts? [8 Marks]
- iii). Explain the term, climate normal. [4 Marks]

QUESTION FOUR

- i). What can we do as Kenyans to reduce emission of greenhouse gases. [8 Marks]
- ii). What effect is climate change having on human health in your community? [8 Marks]
- iii). How will climate change manifest itself as changing weather? [6 Marks]