



**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
DOCTOR OF PHILOSOPHY IN
DISASTER MANAGEMENT AND SUSTAINABLE DEVELOPMENT**

CODE: DSM 901

COURSE TITLE: ENVIRONMENTAL VULNERABILITY TO DISASTERS

DATE: 8/12/2023

TIME: 8-11 A.M

INSTRUCTIONS TO CANDIDATES

1. This paper consists of SIX (6) questions
2. Answer any FOUR (4) QUESTIONS
3. Each question carries a maximum of 20 marks

TIME: 3 Hours

**MMUST observes ZERO tolerance in examination cheating
This Paper consists of 2 printed pages, Please Turn Over**



QUESTION ONE

- (a) Explain the term “GLOBALIZATION in relation to Vulnerability to environmental hazards” (5 Marks)
- (b) Discuss briefly any FIVE advantages and any FIVE disadvantages of globalization of national and community vulnerabilities. (15 Marks)

QUESTION TWO

Discuss any FIVE types of vulnerability common in Kenya. Give relevant examples of each (20 Marks)

QUESTION THREE

Using relevant examples, discuss briefly any FIVE factors which cause vulnerabilities to various hazards in Kenya. (20 Marks)

QUESTION FOUR

- (a) Explain clearly what is meant by the term Vulnerability (5 Marks)
- (b) With the help of a labeled diagram, discuss the concept of ‘Progression of Vulnerability’ in relation to Nairobi Pipeline Fire disaster of 2011 whereby about 100 persons perished, or the Solai Dam Failure disaster of 2018 which led to the death of about 50 persons (15 Marks)

QUESTION FIVE

With the help of relevant examples, discuss briefly how diminishing indigenous knowledge systems could lead to increased vulnerability of Kenyan citizens to various environmental hazards. (20 Marks)

QUESTION SIX

Vulnerability and Poverty are usually interlinked and interconnected.

- (a) With the help of a labeled diagram, discuss the major components of the “Poverty Trap”. (15 Marks)
- (b) Why is vulnerability considered the most important component of poverty trap? (5 Marks)