



(University of Choice)

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

MAIN CAMPUS

UNIVERSITY EXAMINATIONS  
2023/2024 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER EXAMINATION

**MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN DISASTER  
PREPAREDNESS AND ENVIRONMENTAL TECHNOLOGY &  
BACHELOR OF SCIENCE IN DISASTER MITIGATION AND  
SUSTAINABLE DEVELOPMENT**

**COURSE CODE: DPE 301**

**COURSE TITLE: DISASTER RISK AND VULNERABILITY  
ASSESSMENT**

**DATE: 20/12/2023**

**TIME: 3-5PM**

**INSTRUCTIONS TO CANDIDATES**

This paper contains **four (4)** questions

Question **one (1)** is **compulsory** {total = 30 Marks}

Attempt **any other two (2)** {total = 40 Marks} from the remaining questions

Be brief and to the point

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

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



## **SECTION I: COMPULSORY {30 MARKS}**

### **Question ONE**

- a) Giving relevant examples, describe the various strategies of risk reduction **(10 Marks)**
- b) Discuss vulnerability and show how it manifests on a floodplain **(10 Marks)**
- c) Using an illustration, describe the 'risk concept' **(10 Marks)**

## **SECTION II: ATTEMPT ANY OTHER TWO (2) QUESTIONS {40 MARKS}**

### **Question TWO**

- a) Explain what 'risk' entails, highlighting the various modes of risk perception **(10 Marks)**
- b) Describe the various loss parameters that are considered in disaster risk analysis **(10 Marks)**

### **Question THREE**

- a) Name and explain the various phases of achieving comprehensive risk management **(10 Marks)**
- b) The level of risk from a natural hazard to an individual is far less than the risk that is posed to the whole community. Discuss **(10 Marks)**

### **Question FOUR**

- a) What factors should one put into account when assessing disaster risk and vulnerability? **(10 Marks)**
- b) Enumerate any five (5) hazard types and illustrate their vulnerability characteristics **(10 Marks)**

GOOD LUCK!