



**THE CO-OPERATIVE UNIVERSITY OF KENYA
END OF SEMESTER EXAMINATION DECEMBER -2023**

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN DISASTERS,
RISKMANAGEMENT AND SUSTAINABLE DEVELOPMENT
(YR II SEM 1)**

**UNIT CODE: BDRM 2104
UNIT TITLE: BDRM 2104 DISASTER MITIGATION**

**DATE: WEDNESDAY, 20TH DECEMBER, 2023
TIME: 2:30 PM – 4:30 PM**

INSTRUCTIONS:

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

QUESTION ONE

- (a) Define the following concepts (8 marks)
- (i) Disaster
 - (ii) Mitigation
 - (iii) Structural Mitigation
 - (iv) Non-structural Mitigation
- (b) Explain THREE (3) types of droughts (6 marks)
- (c) Briefly explain TWO (2) causes of droughts (4 marks)
- (d) Explain FOUR (4) causes of building collapse (8 marks)
- (e) Explain TWO (2) mitigation strategies that builders should put into consideration to mitigate on building collapse (4 marks)

QUESTION TWO

- (a) According to the different types of losses, the disaster vulnerability can be defined as? (4 marks)
- (b) Discuss some of the prevailing conditions in many of the developing countries that render them vulnerable to natural disasters. (16 marks)

QUESTION THREE

- (a) State FOUR types of landslides. (4 marks)
- (b) While landslides are considered naturally occurring disasters, human-induced changes in the environment have recently caused their upsurge.
- (i) Explain any FOUR(4) natural causes of landslides (8 marks)
 - (ii) Explain TWO(2) human causes of landslides (4 marks)
- (c) Briefly explain how landslides can be mitigated (4 marks)

QUESTION FOUR

- (a) Explain the causes of floods (6 marks)
- (b) Discuss economic and social impacts of floods in Kenya (8 marks)
- (c) Briefly discuss the ecosystem-based approaches to flood mitigation. (6 Marks)

QUESTION FIVE

- (a) Define a “fire”. (2 marks)
- (b) Briefly explain TWO methods you can use to extinguish a fire (4 marks)
- (c) Discuss natural and human causes of wildfires (10 marks)

- (d) Briefly explain how the destructive effects of wildfires can be mitigated (4 marks)