



*(University of Choice)*

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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2021/2022 ACADEMIC YEAR**

**SECOND YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DEGREE**

**OF**

**BACHELOR OF SCIENCE IN DISASTER MITIGATION AND  
SUSTAINABLE DEVELOPMENT (DMSD)**

**COURSE CODE:** DSM 210

**COURSE TITLE:** APPLIED GEOMORPHOLOGY

**DATE:** 28/04/2022

**TIME:** 12 - 2PM

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**INSTRUCTIONS TO CANDIDATES**

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

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 geomorphology:

- i) Denudation [1 Marks]
- ii) Degradation [1 Marks]
- iii) Deposition [2 Marks]
- iv) Endogenic processes [2 Marks]
- v) Mass movement [2 Marks]
- vi) Faulting [2 marks]

b) Differentiate between endogenic and exogenic processes. [6 Marks]

c) State the causes of slope failure. [4 Marks]

d) On 9<sup>th</sup> May, 2018, Solai Patel Minet Earth dam in Nakuru County, Kenya failed/collapsed killing 48 people. Explain some of the possible causes of the failure of the earthen dam structure. [10 Marks]

### QUESTION TWO

i). How do glaciers change landforms on earth? [2 Marks]

ii). Describe the distribution of periglacial landforms [2 Marks]

iii). Explain the formation of periglacial landforms. [3 marks]

iv). Explain the utilization of glacial areas and landforms. [3 marks]

v). Assess the effect of climate change on denudation in Kenya. [2 Marks]

vi). Compare weathering and denudation. [4 Marks]

vii). Give the products of denudation. [4 Marks]

### QUESTION THREE

i). Explain how the process of deposition shapes the Kenyan coastline in Mombasa. [5 Marks]

ii). Distinguish between Constructive and destructive waves. [4 Marks]

iii). Explain how geology influences the formation of coastal landforms along the Kenyan coast in Mombasa. [3 marks]

iv). Explain how beaches form as landforms of deposition at the Kenyan coastline. [5 marks]

v). Outline the human causes of coastal erosion and their impacts as observed between

Mombasa and Malindi. **[6 Marks]**

**QUESTION FOUR**

- i). Distinguish between arid and semi-arid lands of northern Kenya **[4 Marks]**
- ii). Explain the erosion type that is significant in Kenyan arid and semi-arid regions **[2 Marks]**
- iii). Describe the erosional processes occurring in Kenyan arid and semi-arid regions? **[5 Marks]**
- iv). Explain the distribution of karst landforms. **[2 Marks]**
- v). Evaluate suitable conditions for Karst formation **[4 Marks]**
- vi). Explain how erosion takes place in Karst region. **[3 Marks]**

