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**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 ADAPTATION
AND SUSTAINABLE DEVELOPMENT**

COURSE CODE: DSC 112

COURSE TITLE: INTRODUCTION TO EARTH SCIENCE

DATE: 14/12/2023

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 (30 marks)

- a) Distinguish between the following branches of Earth Science:
- i) Climatology and meteorology (4 Marks)
 - ii) Geology and oceanography (4 Marks)
- b) Using a suitable illustration, describe the spheres of the Earth. (15 Marks)
- c) Briefly explain the concept of isostasy in relation to the Earth Crust. (7 Marks)

Question TWO (15 marks)

- a) Outline the characteristics of minerals. (5 Marks)
- b) Distinguish between mechanical and chemical weathering. (5 marks)
- c) Explain the factors which influence the rate of weathering of rocks. (5 Marks)

Question THREE (15 marks)

Using a well labelled diagram, the processes involved in the hydrological cycle. (15 Marks)

Question FOUR (15 marks)

- a) Explain the major types of ecosystems. (7 Marks)
- b) Examine the causes and effects of eutrophication in water bodies (8 Marks)