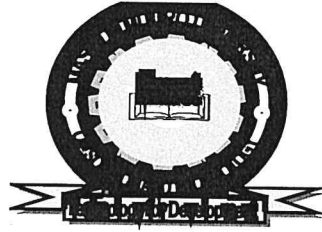


30



(University of Choice)

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

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

UNIVERSITY EXAMINATIONS

FIRST YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

**BACHELOR OF SCIENCE IN DISASTER MITIGATION AND
SUSTAINABLE DEVELOPMENT**

COURSE CODE: DSM 107

COURSE TITLE: ENVIRONMENTAL BIOLOGY

DATE: 20/4/2023

TIME: 8-10 AM

INSTRUCTIONS TO CANDIDATES

Answer question **ONE (1)** 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) Define the term biogeochemical cycle **(2 marks)**
- (b) Explain the significance of the biogeochemical cycle. **(2 marks)**
- (c) Explain the following:
 - (i) The carbon cycle. **(5 marks)**
 - (ii) The global carbon budget **(3 marks)**
- (d) Explain the effects of human activities on Phosphorus nutrient circulation in the environment. **(4 marks)**
- (e) Explain the types of water related diseases. **(8 Marks)**
- (f) Examine the merits and demerits of Remote surveillance method of monitoring. **(6 Marks)**

Question TWO

- (a) Explain the concept of alternative energy. **(8 marks)**
- (b) Discuss the main features that make Solar Energy an environmentally friendly and sustainable resource. **(12 marks)**

Question THREE

River Isiukhu passes through Kakamega Forest and meanders through farmlands towards Butere. You are required to observe and document natural resource assets from the river resource. Outline the main activities you will undertake and the nature of findings to be documented. **(20 Marks)**

Question FOUR

- (a) Discuss the contribution of resource recovery in waste management. **(10 marks)**
- (b) Explain the merits of incineration as a waste treatment process. **(10 marks)**