



(University of Choice)

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

(Main Campus)

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY. EXAMINATION

**FOURTH YEAR FIRST SEMESTER SPECIAL/SUPP.
EXAMINATIONS**

FOR THE DEGREE OF

BACHELOR OF SCIENCE IN EMERGENCY MANAGEMENT SERVICES

COURSE CODE: DEM 402

COURSE TITLE: TECHNOLOGY AND EMERGENCY MANAGEMENT II

DATE: 01/8/2022

TIME: 11 - 1PM

Instructions to Candidates

Answer ALL questions in Section A and ANY TWO in Section B

MMUST observes ZERO tolerance to examination cheating.

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

SECTION A: Answer ALL questions [30 Marks]

Question ONE

- a) Discuss briefly the components information in emergency management. [10 Marks]
- b) State the major hazard causal factor categories in HCF model. [6 Marks]
- c) Describe the importance of Real Time DGPS in emergency management. [6 Marks]
- d) State and describe GPS Space Segment in emergency management. (8 Marks)

SECTION B: Answer ANY TWO questions [40 Marks]

Question TWO

- a) With the aid of a sketch, discuss the application of GIS technology disaster management and terrorism. [10 marks]
- b) Briefly discuss the advantages of using Remote sensing in emergency management. [10 Marks]

Question THREE

- a) Briefly discuss the roles of satellites in emergency management. [6 Marks]
- b) State and discuss the benefits of GPS in emergency management. [14 marks]

Question FOUR

- a) State the processes of converting remote sensed data into useful information in emergency management. [14 Marks]
- b) State and discuss the classification of satellites based on their uses in emergency management. (6 Marks)