# MASINDE MULIRO UNIVERSITY OF

# SCIENCE AND TECHNOLOGY

# (MMUST)

# UNIVERSITY EXAMINATIONS

# 2021/2022 ACADEMIC YEAR,

# 1ST YEAR SECOND SEMESTER, EXAMINATION

# (MAIN EXAM)

# MASTER OF ARTS IN GEOGRAPHY

**COURSE CODE:** **GEO 834**

**COURSE TITLE:** **ADVANCED COMPUTER SCIENCE FOR GEOGRAPHERS**

**DATE:** Wednesday 27th April, 2022 **TIME:** 9:00-12:00 PM

## INSTRUCTIONS TO CANDIDATES

- Answer question ONE and any other THREE questions

- Use illustrations wherever appropriate.


**MMUST observes ZERO tolerance to examination cheating**

## Question ONE

  i.  Outline FOUR features that distinguishes a GIS system from other information systems.
                                                                                                        (8marks)
  ii.  State the similarities and differences between the two GIS data structures.          (7marks)

## Question TWO
Discuss the spatial data analysis techniques in GIS.                                         (15marks)

## Question THREE

Identify and explain any five techniques used in GIS data capture.                          (15marks)

## Question FOUR
'Spatial data quality is the main challenge to GIS specialists'. Discuss.                    (15marks)

## Question FIVE

Describe the applications of GIS in the following:

          a) Forest Management
          b) Transportation planning
          c) Agriculture
                                                                                                        (15marks)

## Question SIX
Discuss the issues and challenges in GIS data analysis                                       (15marks)