



**ALUPE UNIVERSITY  
COLLEGE**  
*Bastion of Knowledge...*

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**OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, RESEARCH AND STUDENT AFFAIRS**

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# **UNIVERSITY EXAMINATIONS**

## **2020/2021 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER REGULAR MAIN  
EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF  
EDUCATION (ARTS)**

**COURSE CODE: GEO 111**

**COURSE TITLE: INTRODUCTION TO REMOTE  
SENSING AND GIS**

**DATE: 17<sup>TH</sup> FEBRUARY, 2021**

**TIME: 9.00 AM – 12.00 NOON**

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### **INSTRUCTION TO CANDIDATES**

- SEE INSIDE

**THIS PAPER CONSISTS OF 3 PRINTED PAGES**

**PLEASE TURN OVER**

**GEO 111: INTRODUCTION TO REMOTE SENSING AND GIS**

**STREAM: BED (Arts)**

**DURATION: 3 Hours**

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**INSTRUCTIONS TO CANDIDATES**

- i. Answer Question **ONE** and any other **TWO** questions.*
- ii. Maps, sketches and diagrams should be used whenever they serve to illustrate an answer.*
- iii. Do not write on the question paper.*

**Question One**

- a) Define the following terms:
  - i. Data field (2 Marks)
  - ii. Database management system (2 Marks)
  - iii. Sensor (2 Marks)
- b) Explain how GIS technology relies on remote sensing. (4 Marks)
- c) You are employed in the ministry of environment and natural resources in a country.
  - i. Explain importance of remote sensing technology in resource mapping and management to the Cabinet Secretary. (20 Marks)
  - ii. Explain FOUR limitations in the use of remote sensing technology. (8 Marks)

**Question Two**

- a) Explain FOUR characteristics of a geographic feature. (8 Marks)
- b) Describe FOUR geographical features based on their dimensions. (12 Marks)

**Question Three**

- a) Describe the following components of GIS:
  - i. Hardware (3 Marks)
  - ii. Software (3 Marks)
  - iii. GIS users (3 Marks)
  - iv. Data (3 Marks)
- b) Explain FOUR advantages of using GIS in analysis of data. (8 Marks)

**Question Four**

Giving examples, explain how you would apply remote sensing in FOUR of the following areas:

- a) Forestry (5 Marks)
- b) Bio-diversity (5 Marks)
- c) Geology (5 Marks)
- d) Oceanography (5 Marks)
- e) Meteorology (5 Marks)

**Question Five**

- a) How is GIS technology different from other information system? (2 Marks)
- b) Explain FOUR sources of data for GIS. (8 Marks)
- c) Explain five advantages of raster data format used in GIS. (10 Marks)

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