



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

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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, RESEARCH AND STUDENT AFFAIRS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FOURTHYEAR FIRSTSEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
EDUCATION (ARTS/BUSINESS STUDIES)**

COURSE CODE: GEO 111

COURSE TITLE: INTRODUCTION TO REMOTE SENSING AND

DATE: 20/1/2022

TIME: 2-5PM

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

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 the answer.
- iii. Do not write on the question paper.

Question One

- a) Define the following terms as used in remote sensing:
 - i. Sensor (2 Marks)
 - ii. Platform (2 Marks)
 - iii. Target (2 Marks)
- b) Explain the difference between modern remote sensing and traditional aerial photography. (4 Marks)
- c) Alupe University College is planning to set up a GIS laboratory.
 - i. Explain to the administration the stages which will be followed in setting up the GIS laboratory. (12 Marks)
 - ii. Explain the challenges which might be encountered during the implementation of the GIS laboratory. (8 Marks)

Question Two

- a) Discuss main classification of sensor platforms used in remote sensing. (12 Marks)
- b) Explain how sensors used in remote sensing use electromagnetic energy radiation to detect image of an object. (8 Marks)

Question Three

- a) Describe FIVE commonly used passive sensors in remote sensing. (10 Marks)
- b) Explain advantages of GIS maps over conventional paper maps. (10 Marks)

Question Four

- a) Discuss circumstances which may lead to occurrence of errors in a GIS. (12 Marks)
- b) Explain measures which can be taken to minimize occurrence of errors in a GIS. (8 Marks)

Question Five

- a) Using illustrations, describe the following data models used in GIS:
 - i. Hierarchical model (5 Marks)
 - ii. Network model (5 Marks)
- b) Explain advantages of vector data format used in GIS. (10 Marks)
