



ALUPE UNIVERSITY
COLLEGE
Bastion of Knowledge...

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OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, RESEARCH AND STUDENT AFFAIRS

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER REGULAR EXAMINATION

FOR THE DEGREE OF BACHELOR OF
EDUCATION (ARTS)

COURSE CODE: GEO 111

COURSE TITLE: INTRODUCTION TO REMOTE
SENSING AND GIS

DATE: 10TH DECEMBER, 2019

TIME: 9.00 AM – 12.00 NOON

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: 3Hours

INSTRUCTIONS TO THE CANDIDATE

- i. Answer questions **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) Explain FIVE major benefits of GIS (5 Marks)
- b) Explain how map point tool in GIS is used as a modern technology (5 Marks)
- c) Examine the functions of biological sensor in remote sensing system (5 Marks)
- d) Describe active and passive remote sensing (5 Marks)
- e) Explain "Resolution" as used in remote sensing (5 Marks)
- f) Outline FIVE benefits of remote sensing (5 Marks)

Question Two

- a) Use a diagram to illustrate the interactions of electromagnetic radiation and matter in the environment of remote sensing (10 Marks)
- b) Explain panchromatic and infrared films as commonly used in remote sensing (10 Marks)

Question Three

- a) Explain five ways by which the satellite known as LANDSAT in remote sensing captures agricultural land use (10 Marks)
- b) How does LANDSAT capture wetlands? (10 Marks)

Question Four

- a) Examine the application of remote sensing on
 - i) Forest management
 - ii) Oil exploration
 - iii) Soil surveys
 - iv) Road construction (10 Marks)

- b) Explain how Raster and Vector are used in GIS data collection (10 Marks)

Question Five

- a) How can the GIS application on geospatial phenomena promote planning and management in the regions? (10 Marks)
- b) Explain how the application of GIS promotes: (10 Marks)
 - i) Urban modeling
 - ii) Urban growth
 - iii) Conservation of water resources
 - iv) Government planning for human population
 - v) Food security
