



UNIVERSITY EXAMINATIONS

SECOND SEMESTER 2023/2024 ACADEMIC YEAR

**FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN GEOGRAPHY**

**GEOG 121: INTRODUCTION TO COMPUTER ASSISTED
CARTOGRAPHY**

STREAM: R

TIME: 2 HRS

DAY: WEDNESDAY[11.30A.M – 1.30 P.M] DATE: 17/04/2024

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTIONS TO CANDIDATE

- i) Answer **QUESTION ONE** and **ANY OTHER TWO** Questions.
- ii) Maps, sketches, diagrams and examples should be used where they serve to illustrate the answers.

QUESTION ONE (30 Marks)

- a) Explain the following terms as used in cartography
- i) Geodesy (3 Marks)
 - ii) Digital cartography (3 Marks)
 - iii) Map design (3 Marks)
 - iv) Symbolisation (3 Marks)
- b) Briefly explain any **THREE** types of maps and their relevance in spatial planning (10 Marks)
- c) Explain the differences between raster and vector data models and their application in digital mapping (8 Marks)

QUESTION TWO (20 MARKS)

Using suitable examples, describe mapping the design process (20 Marks)

QUESTION THREE (20 MARKS)

Discuss the impacts of computers on cartography (20 Marks)

QUESTION FOUR (20 MARKS)

Briefly explain the following terms and phrases:

- a) Map projection (5 Marks)
- b) Coordinate system (5 Marks)
- c) Universal Transverse Mercator (UTM) projections (5 Marks)
- d) Datum transformations (5 Marks)

QUESTION FIVE (20 MARKS)

Discuss any **FIVE** elements of map design highlighting their relevance in mapping (20 Marks)