



UNIVERSITY EXAMINATIONS

SECOND SEMESTER 2023/2024 ACADEMIC YEAR

**THIRD YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE (GEOGRAPHY)**

**GEOG 321: ADVANCED COMPUTER ASSISTED
CARTOGRAPHY**

STREAM: R

TIME: 2 HRS

DAY: THURSDAY[8.30.A.M -10.30A.M] DATE: 18/04/2024

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTIONS TO CANDIDATES

- 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

- a) Examine any **FIVE** factors which influence cartographic map design (10 Marks)
- b) Differentiate between the following:
 - i) Digital mapping and web mapping (4 Marks)
 - ii) Panning and zooming (4 Marks)
 - iii) Zooming-in and zooming-out (4 Marks)
 - iv) Interactive map and static map (4 Marks)
 - v) Hard-copy map and soft-copy map (4 Marks)

QUESTION TWO

- a) Examine any **FIVE** cartographic tasks which have been simplified through the computerization of cartography (10 Marks)
- b) Distinguish between stream-mode digitizing and point-mode digitizing (10 Marks)

QUESTION THREE

- a) Compare and contrast digital cartography and Geographic Information Systems (GIS) (10 Marks)
- b) Discuss the **TWO** coordinate systems used in computer-assisted cartography (10 Marks)

QUESTION FOUR

- a) Explain the meaning of choropleth map (2 Marks)
- b) Assume that you have been given the 2019 population data for Kenya per county as well as the county boundaries layer. You are required to use a computer to portray the data using choropleth mapping technique.
 - i) Explain the step-by step procedure of making the choropleth map to represent the population data. (8 Marks)
 - ii) Highlight any **FIVE** shortcomings of the choropleth mapping (5 Marks)
 - iii) Discuss **THREE** advantages of using a computer in choropleth mapping (5 Marks)

QUESTION FIVE

- a) List any **FIVE** marginal information which can be inserted on a map during computer assisted mapping (5 Marks)
- b) Discuss how computer-use has led to the 'adulteration' of cartography (5 Marks)
- c) Discuss the democratization of cartography and highlight its effects (10 Marks)