

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**FOURTH YEAR EXAMINATION FOR THE AWARD OF  
DEGREE OF BACHELOR OF EDUCATION (ARTS)**

**GEOG 435: GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

**STREAMS: BA Y4 S2**

**TIME: 2 HOURS**

**DAY/DATE : WEDNESDAY 22 /09/ 2021**

**2.30 PM – 4.30 PM**

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**INSTRUCTIONS:**

- Answer Question One and any other Two Questions.
- Where necessary use examples and illustrations to support your answers

- a) State and Explain **FOUR** sources of spatial data. [8 Marks]
  - b) Explain **FIVE** generic questions that can be answered by GIS methods. [10 Marks]
  - c) Describe **FOUR** functions of a Geographic information systems. [12 Marks]
- a) Examine **THREE** dimensions of data used in GIS. [5 Marks]
  - b) Discuss **FIVE** components that make up full Geographic information systems. [15 Marks]
- Examine **SIX** factors that **MUST** be considered when choosing data for use in Geo spatial applications. [20 Marks]
- a) Describe **FOUR** steps that are followed when modeling reality within a GIS environment. [8

Marks]

- b) What are the **THREE** basic spatial entities and how are they used to portray geographic features in GIS. [12

Marks]

5. a) Using examples, discuss the different types of spatial analysis that can be done in GIS. [14

Marks]

- b) Compare and contrast between vector and Raster spatial data models. [6 Marks]

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