



**COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES**

**NANR 304: GEOGRAPHICAL INFORMATION SYSTEMS**

**END OF SECOND SEMESTER FINAL EXAMINATIONS**

**APRIL 2023**

**LECTURER: MS. B. BOLO**

**DURATION: 3 HOURS**

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***INSTRUCTIONS***

Do NOT write your name on the answer sheet.

Answer (fully) questions.

Begin your answer for each question on a new page.

Credit is given for neat, well-written and lucid work.

## **SECTION A [COMPULSARY]**

### **Section A: [50 MARKS]**

1. What are the differences between spatial data and attribute data? **(4 Marks)**
2. List five (5) elements of a Map layout and discuss their importance **(10 Marks)**.
3. Discuss the advantages of vector GIS data compared to raster data **(6 Marks)**.
4. What is Geographical Information System? **(5 Marks)**
5. Describe a typical application of GIS in an area of your choice. In your description, include a statement of the problem, how the data would be collected, analyzed, and how the results are best presented. **(25 marks)**

## **SECTION B [CHOOSE AND ANSWER TWO QUESTIONS]**

### **Section B: [50 MARKS]**

1. What is the value of GIS in the industry? Discuss in detail four (4) functions of GIS. **(25 Marks)**.
2. All maps must have map scales to represent the ratio of an object on the ground and on paper. Explain in detail three types of map scales with examples. **(25 Marks)**.
3. Information technologies and systems are important to the society, discuss the future of GIS technologies and systems to the society. **(25 Marks)**.
4. Discuss a specific example of how you can use GIS to solve a problem of an international environmental issue. **(25 Marks)**