STREAMS: **TIME: 2 HRS**
DAY: **DATE:**

INSTRUCTIONS

Answer question **ONE** and any other **TWO** questions. **USE** diagrams wherever they serve to illustrate an answer.

1.
   a) What do you understand by the term spatial analysis? (5 marks).
   b) Explain why a spatial perspective is useful and insightful (10marks).
   c) To what extent can space be abstracted? (5 marks).
   d) Briefly describe the fundamental concepts of spatial analysis (10marks).

2. What are the fundamental principles of spatial interaction? (20marks).

3.
   a) What is spatial data? (4 marks).
   b) Briefly discuss the three classes of spatial data (6 Marks)
   c) Briefly discuss the causes of spatial heterogeneity (10 marks).

4.
   a) Why is statistics important? (5 marks).
   b) Write short notes on the following:
         a. Spatial statistics (5 marks)
         b. Geo-statistics (5 marks).
         c. Problems related to spatial sampling (5 marks)

5. Write short notes on the following:
   a) Sources of data for a GIS (5 marks).
   b) Advantages of having data in digital format (5 marks).
   c) Vector data model (5 marks).
   d) Research areas that can use spatial data analysis (5 marks).