INSTRUCTIONS

1. Do not write your name on the answer sheet

2. Use Answer Sheets Provided

3. Begin your answer for Each Question on a New Page

4. Credit is Given for Neat Presentation

5. Answer Question One and Any Other Three

6. Each Question carries 25 marks

ANR 304/HGE306 GEOGRAPHICAL INFORMATION SYSTEMS

Answer QUESTION ONE and any other THREE

1. Describe a typical application of Geographical Information Systems (GIS) in an area of your choice. In your description, include a statement of the problem, how the data would be collected, spatially modelled, analysed, and how the results are best presented   [25 marks]

2. a) Discuss the different sources of GIS data   [8 marks]

   b) Explain the problems that can be encountered during data integration and analysis, and how they can be resolved   [17 marks]

3. Compare and contrast the advantages and disadvantages of vector and raster data models   [25 marks]

4. a) Differentiate between data quality, accuracy and precision in GIS   [9 marks].
   b) Outline the methods used in assessing error in spatial data   [16 marks].

5. With the aid of diagrams, explain in detail the following models:
     a) spatial data structure   [13 marks]
     b) database management   [12 marks]

6. Discuss any two types of map projections used in any country of your choice. Include the advantages and disadvantages of each projection type   [25 marks]

End of Examination Paper