

1. **BASIC CONCEPTS AND TERMINOLOGY**

Explain what a GIS is and how it differs from any other information system. (3)

Explain the difference between spatial and attribute data. (2)

Explain the difference between GIS and GIScience (2)

Name the 5 functions that GIS software should be able to perform (5)

2. **DEFINE THE INFORMATION PRODUCT**

Scenario: A developer wants to find a property for the development of a new 5 star hotel in Durban. This new hotel must be within walking distance from the beach, close to cinemas and a shopping centre. The area of the property must be at least one hectare and the property should be further than 5 km from any other 5 star hotels.

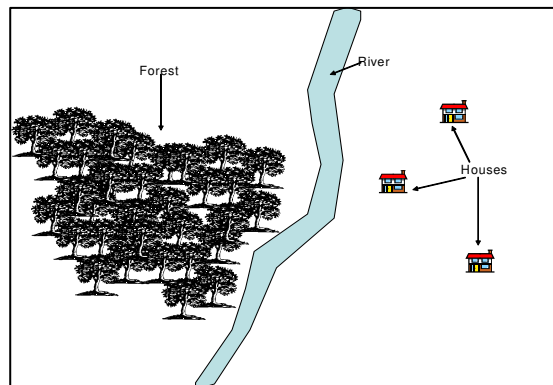
Based on the above scenario define a research question and 4 decision making criteria (5)

Make a list of spatial and attribute data needed for the project (6)

3. **DESIGN THE GIS MODEL OF REALITY**

3.1 Name the different scales of measurements used to capture attribute data in a GIS. (4)

3.2 The following image represents the real world:



You are working on a scale 1:150 000. Illustrate how these world objects will be represented in a raster and vector data model. (6)

- 3.3 Give two reasons why different places on the earth use different ellipsoids (2)
- 3.4 Name the ellipsoid mostly used in South Africa (1)
- 3.5 Explain the working of the relational database model by means of an example. (6)

4. **DATA ACQUISITION**

Define the following terminology:

Generalisation

Data stream

Data encoding

(3)

Explain the difference between a GNSS and a GPS

(2)

Name three advantages and/or disadvantages of satellite images as a source of data for the use in a GIS

(3)

Total (50)