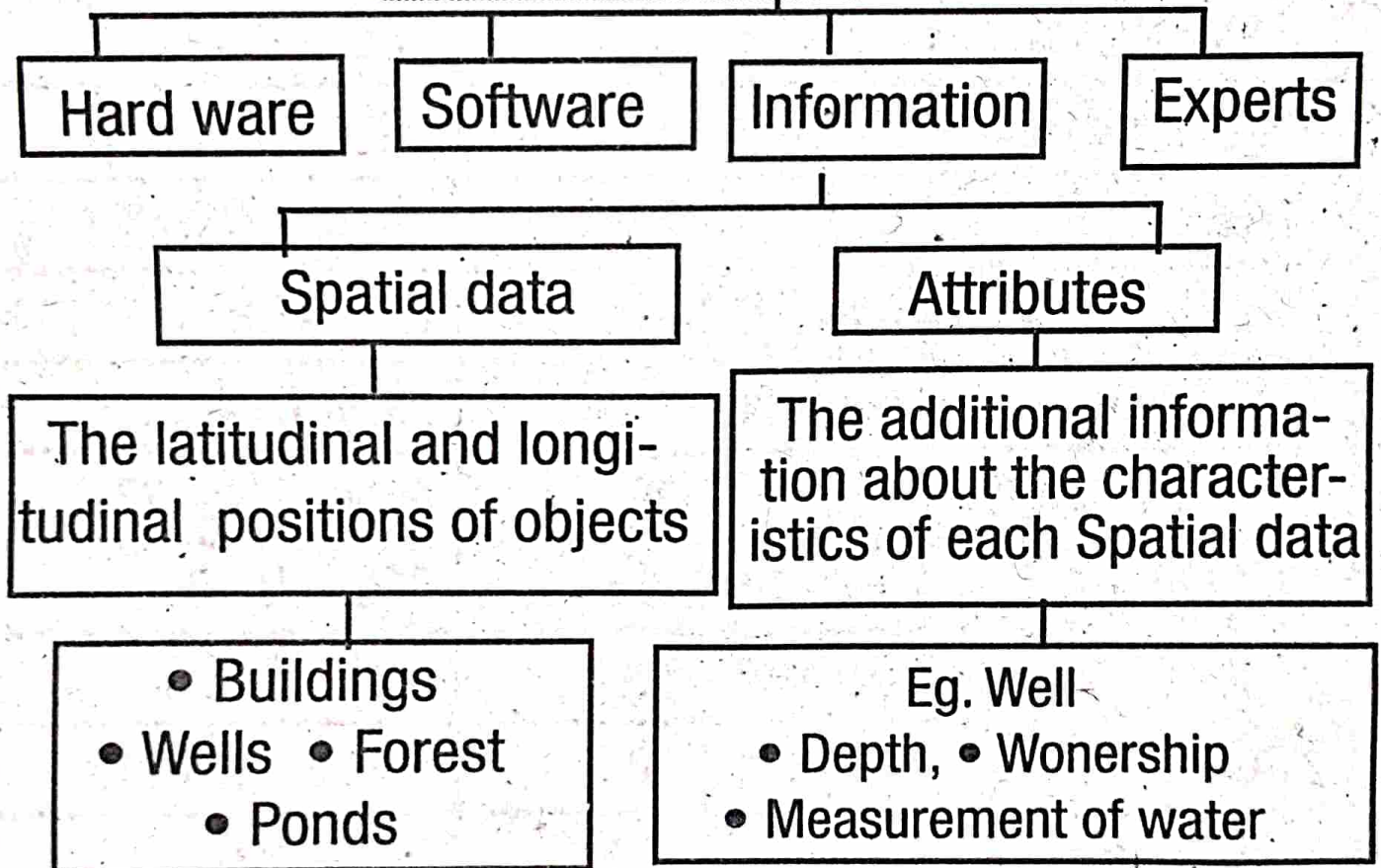


Geographic Information System

Flow chart

Geographic information System



1. What are the uses of softwares of Geographical Information System?

Softwares of Geographical Information System can exhibit, renew and produce new maps in addition to the analysis and preparation of maps and graphs based on data acquired.

2. What is geographic information system?

Geographic Information System is a computer based information management system by which the data collected from the sources of information like maps, aerial photographs, satellite imageries, tables, surveys etc. are incorporated in to the computer using softwares, which are retrieved, analyzed and displayed in the form of maps, tables and graphs.

3. Observe the picture given in the textbook page 103 and explain the different stages of Geographic information system.

Entering basic data in to computer using data input devices like CDs and Scanners is the first step. Various layers can be created based on the collected data with the help of Geographic Information System softwares. The analyzed data can be converted in accordance with our needs into products either in the form of maps, tables or digital data.

4. Two kinds of data are necessary for data analysis in Geographic Information System. What are the two kinds of data? Compare them and prepare a note.

Spatial data and attributes are the two kinds of data.

Spatial data: Each feature on the surface of the earth has a location of its own. Such features of the earth's surface having a specific location are known as spatial data. We can find out the latitudinal and longitudinal location of our country with the help of the website Bhuvan ([https://bhuvan – app I.nrse.gov. in](https://bhuvan-app.inrse.gov.in)) or with an atlas.

Attributes: The additional information about the characteristics of each spatial data on the earth's surface are called attributes. The attributes can be combined with spatial data. If we can collect and include the spatial data and attributes of places in the data base, the GIS can give precise and scientific answers to the various queries about that place.

1. What is buffer zone?

A circular zone created around a point feature or a parallel zone created beside a linear feature in buffer analysis is called buffer zone.

2. Tabulate the uses of GIS.

- compile data from different sources
- update and incorporate data easily
- conduct thematic studies
- represent geographic features spatially
- generate visual models of future phenomena and processes based on the data collected
- prepare maps, tables, and graphs

Satellite based Navigation System

1. What is Global Positioning System?

The Global Positioning System helps sensing the latitudinal and longitudinal location and elevation of objects on the earth's surface along with the corresponding time.

2. Explain the working of Global Positioning System.

In this system a series of 24 satellites placed at six different orbits between the altitudes 20000 and 20200 km above the earth's surface locate objects. We can locate places with the help of the signals received from the satellites in our handheld device. The GPS requires signals from at least four satellites to display information like the latitude, longitude, elevation, time, etc. in it. More satellites are being included in this system for enhancing accuracy.

3. For what need the U.S. A. prepared GPS?

Though started initially for the U.S. defence, this facility is now open to the public since 1980.

4. Tabulate the more possibilities of GPS.

- Road transportation - to understand the location of the vehicle and the direction of travelling.
- Air transportation
- Ocean transportation
- Security - transportation of valuable things and observing their location.
- To determine in advance the way for the group of vehicles of important personalities.
- Survey, map making and communication, etc.