04 ## GIS System:-

A GIS is a system that creates, manages, analyzes, and maps all types of data. GIS connects data to a map, integrating location data (where things are) with all types of descriptive information.

Components of GIS:

GIS can be viewed as an integration of 3 components that are hardware & software, data, people.

05 ### 1. Hardware & software:

Hardware relates to the devices used by end users such as graphic devices or plotters & scanners. Data storage & manipulation is done using a range of processor. With the development of Internet & web based application, web servers have become part of many system's architecture, hence most GIS's follows 3 tier architecture

Software part relates to the processes used to define, store & manipulate the data & it is akin to DBMS.

01

2. Data :-

Known as the heart of GIS.
Geographic data are basically divided into two
main groups that are raster and vector.

- Vector data/layers in GIS refers to discrete objects
  represented by points, lines and polygons.
  Layers represent geometries that share a common
  set of attributes. Vector sources include digitized
  maps, features extracted from image surveys etc

Raster data is a continuous grid of cells in two dimension
Raster data are divided into categorical & continuous.
Categorical data is of soil type, vegetation type
and suitability & so on. Continuous raster
images usually describe continuous phenomena
in space.
Typical raster sources are aerial images, satellite
images & scanned map images.

3. People :-

People are involved in every phase of
GIS & in collecting data. Including cartographers
and surveyors who creates the map and survey the
land and geographical features. It also includes system
users who collect the data, upload the data to system,
manipulate the system & analyze the results.

02   9.5   03

The remaining two components??