Q35. DBMS stands for

- 1. Database Management System
- 2. Database Monitoring System
- 3. Database Manufacturing System
- 4. Database Mixing Station

Answer: A

Q36. What are the various reasons for which DBMS is used

- 1. A DBMS supports the storage and manipulation of very large data sets
- 2. A DBMS can be instructed to guard over data correctness
- 3. A DBMS supports the concurrent use of the same data set by many users
- 4. All of the above

Q11. The following are the examples of 'geographic fields'

- 1. Air temperature
- 2. Barometric pressure
- 3. Elevation
- 4. All of the above

Answer: D

Q12. Which of the following statements are true?

- 1. Natural phenomena are usually fields
- 2. Man-made phenomena are usually objects
- 3. Both 'A' & 'B' are true
- 4. None of the above

Answer: C

Q5. What is 'Metadata'?

- 1. It is 'data about data'
- 2. It is 'meteorological data'
- 3. It is 'oceanic data'
- 4. It is 'contour data'

Answer: A

Q6. Key components of 'spatial data' quality include

- 1. Positional accuracy
- 2. Temporal accuracy
- 3. Lineage and completeness
- 4. Logical consistency
- 5. All of the above

Answer: E

7.	Which of the following is not an example of spatial data?
	Points showing location of discrete objects.
	Times of particular events.
	Lines showing the route of linear objects.
	Polygons showing the area occupied by a particular land use or variable.
8.	Aronoff (1989) classifies GIS analysis procedures into which of the following?
	Decision making and support procedures.
	Those used for storage and retrieval.
	Modelling procedures or functions for the prediction of what data might be at a different time and place.
	Constrained queries that allow the user to look at patterns in their data.
	Those used to display spatial data for end-user visualization.
9.	Spatial referencing is the process of which of the following?
	Referencing geo-relational tables.
	Establishing the topology of spatial objects.
	Computing the reference between items in databases.

Combing attribute values with locational information.

Q39. Which of the following statements is true

- 1. A table or relation is itself a collection of 'tuples' (or records)
- 2. Each table is a collection of tuples that are similarly shaped
- 3. An 'attribute' is a named field of a tuple, with which each tuple associates a value, the tuple's 'attribute value'
- 4. All of the above

Answer: D

Q40. Which of the following statements is true in connection with a 'tuple'

- The set of tuples in a relation at some point in time is called the 'relational instance' at that moment
- 2. This tuple set is always finite
- 3. It is possible to count how many tuples are there
- 4. Only 'A' & 'B' are true
- 5. 'A', 'B' & 'C' are true

Answer: E

14.

Attribute data are one type of spatial data.

① True

False

.....

Q37. Which of the following is true about DBMS

- 1. A DBMS provides a high-level, 'declaration query language'
- 2. A DBMS supports the use of a 'data model'
- A DBMS includes 'data backup' and 'recovery' functions to ensure data availability at all times
- 4. A DBMS allows the control of 'data redundancy'
- 5. All of the above

Answer: E

Q38. A 'data model' is a language that allows the definition of

- 1. The 'structures' that will be used to store the base data
- 2. The 'integrity constraints' that the stored data has to obey at all moments in time
- 3. The 'computer programs' used to manipulate the data
- 4. All of the above

the epistemological study of GIS. the use of GIS to solve physical problems. the application of GIS to a range of scientific disciplines. the science behind GIS. the science behind GIS. true False
D True
3 MOVIE.
luman factors influence the success of GIS as a decision support tool. True False
teality can be represented in GIS as a series of layers or as objects. True False
* 0

Introduction to GIS

Q1. GIS stands for

- 1. Geographic Information System
- 2. Generic Information System
- 3. Geological Information System
- 4. Geographic Information Sharing

Answer: A

Q2. GIS deals with which kind of data

- 1. Numeric data
- 2. Binary data
- 3. Spatial data
- 4. Complex data

Answer: C

Answer with True or False and correct the false statement:

1- Start editing is needed to add a field in the attribute table.

Answer: (FALSE), stop editing is needed to add a field in the attribute table.

2- When you are editing, you alter the source data.

Answer: (FALSE), you alter the source data when you are saving you're editing.

3- You can add a field to attribute table in ARCCATALOG while the table is opened in ARCMAP.

Answer: (FALSE), you can add a field to attribute table in ARCCATALOG, only if the table is not accessed by anther application (ARCMAP, MS ACCESS).

4- Projection information for a shape file is stored in an x.dbf file.

Answer: (FALSE), Projection information for a shape file is stored in an x.prj file.

5- The vector storage uses a series of equal-sized cells.

Answer: (FALSE), the raster storage uses a series of equal-sized cells.

6- You can group points and lines into the same feature class.

Answer: (FALSE), feature class can contain only one feature type (points/polygons, or lines), but feature dataset can contain several feature classes with several feature types.

7- You can group points and lines into the same shape file.

Answer: (FALSE) shape file contains only one feature date type.

8- A shape file is a folder containing feature classes.

Answer: (FALSE), a feature dataset is a folder containing feature classes.

9- It is not necessary to define the type of the feature when you create a new shape file.

Answer: (FALSE), you can not create a new shape file without defining its feature data type.

10- Edit and clean is not important for a point shape file.

Answer: (TRUE).

Answer with True or False and correct the false statement:

1- Start editing is needed to add a field in the attribute table.

Answer: (FALSE), stop editing is needed to add a field in the attribute table.

2- When you are editing, you alter the source data.

Answer: (FALSE), you alter the source data when you are saving you're editing.

3- You can add a field to attribute table in ARCCATALOG while the table is opened in ARCMAP.

Answer: (FALSE), you can add a field to attribute table in ARCCATALOG, only if the table is not accessed by anther application (ARCMAP, MS ACCESS).

4- Projection information for a shape file is stored in an x.dbf file.

Answer: (FALSE), Projection information for a shape file is stored in an x.prj file.

5- The vector storage uses a series of equal-sized cells.

Answer: (FALSE), the raster storage uses a series of equal-sized cells.

6- You can group points and lines into the same feature class.

Answer: (FALSE), feature class can contain only one feature type (points/polygons, or lines), but feature dataset can contain several feature classes with several feature types.

7- You can group points and lines into the same shape file.

Answer: (FALSE) shape file contains only one feature date type.

8- A shape file is a folder containing feature classes.

Answer: (FALSE), a feature dataset is a folder containing feature classes.

9- It is not necessary to define the type of the feature when you create a new shape file.

Answer: (FALSE), you can not create a new shape file without defining its feature data type.

10- Edit and clean is not important for a point shape file.

Answer: (TRUE).

Answer: (TRUE).

11- You can undo the wrong actions in ARCMAP.

Answer: (TRUE).

12- Dangle node is considered an error in line shape file.

Answer: (FALSE), Dangle node is considered an error in polygon shape file.

13- GPS instrument is used to get the control points coordinates in meters.

Answer: (FALSE). GPS instrument is used to get the control points coordinates in

degree minutes second.

14- Pseudo node is considered an error in a polygon shape file.

Answer: (FALSE), Pseudo node is considered an error in a line shape file.

15- Tabular data can be both input and output of GIS.

Answer: (TRUE).

16- There is no spatial relationship between points, lines, and polygons in topological data.

Answer: (FALSE), there is no spatial relationship between points, lines, and polygons in spaghetti data.

17- Each field should have a unique name.

Answer: (TRUE).

18- Vector data is always more accurate than raster data.

Answer: (TRUE).

19- Before you can edit a feature, you must first select it with the sketch tool.

Answer: (FALSE), before you can edit a feature, you must first select it with the edit tool.

20- You can save your edits while editing or at the end of the edit session.

Answer: (TRUE).

Geographic Information & Spatial Data Types

Q9. Which of the following is related to GIS

- 1. Euclidean space
- 2. Ramanujan space
- 3. Pythagorian space
- 4. None of the above

Answer: A

Q10. A (geographic) field is a geographic phenomena for which, for every point in the study area

- 1. A value can be determined
- 2. A value cannot be determined
- 3. A value is not relevant
- 4. A value is missing

Answer: A

Q15. Which of the following is true about 'Discrete fields'

- Discrete fields divide the study space in mutually exclusive, bounded parts, with all locations in one part having the same field value
- 2. 'Land classification' is an example of discrete fields
- 3. Discrete fields make use of 'bounded' features
- 4. All of the above

Answer: D

Q16. Which of the following is true about 'Nominal Data Values'

- They are values that provide a name or identifier so that we can discriminate between different values
- 2. True computations cannot be done with these values
- When the values assigned are sorted according to some set of nonoverlapping categories, they are called 'categorical data'
- 4. All of the above

Q3. Which of the following statements is true about the capabilities of GIS

- 1. Data capture and preparation
- 2. Data management, including storage and maintenance
- 3. Data manipulation and analysis
- 4. Data presentation
- 5. All of the above

Answer: E

Q4. By 'spatial data' we mean data that has

- 1. Complex values
- 2. Positional values
- 3. Graphic values
- 4. Decimal values

Answer: B

Q13. Fields can be

- 1. Discrete only
- 2. Continuous only
- 3. Discrete or continuous
- 4. None of the above

Answer: C

Q14. Examples of 'continuous fields' are

- 1. Air temperature
- 2. Barometric pressure
- 3. Soil salinity
- 4. Elevation
- 5. All of the above

Answer: E

Q7. 'Spatial databases' are also known as

- 1. Geodatabases
- 2. Monodatabases
- 3. Concurrent databases
- 4. None of the above

Answer: A

Q8. Successful spatial analysis needs

- 1. Appropriate software
- 2. Appropriate hardware
- 3. Competent user
- 4. All of the above

4.)	Which of the following list is the key area of GIS functionality missed out by the above definition? Mapping. Re-projection. Collation. Analysis.
5.	Which of the following is not a key concept that is part of our definition of GIS? GIS technologies include GPS and remote sensing. People are an important part of GIS. GIS can be used in all areas of modern science. GIS includes both computer systems (hardware) and computer programs (software).
6.)	Which of the following are essential components of a GIS? ✓ A computer with sufficient memory and processing power to run the software. ✓ A visual display unit capable of high resolution colour graphical display as well as text. ✓ Spatial data. ✓ Appropriate GIS software. ✓ Data input and output devices such as digitizers/scanners and printer/plotters. ✓ A fast Internet connection.

1.)	Which three of the following questions may be best answered using a GIS?
	How does a process operate?
	Where is a particular feature found?
	What is the relationship between two variables?
	₩ What geographical patterns exist?
2.	Which of the following are key application disciplines for GIS?
	Commerce and business.
	Physics and chemistry.
	Environmental sciences.
	Civil engineering.
	Astronomy.
3.	A GIS is 'a set of tools for collecting, storing, retrieving at will, transforming, and displaying spatial data from the real world for a particular set of purposes' is a well used definition of a GIS provided by:
	Roger Chorley (1987).
	David Rhind (1991).
	Peter Burrough (1986).

Mike Goodchild (1997).

Multiple choice questions

Try the multiple choice questions below to test your knowledge of this chapter.

There are two main types of MCQ: those where there is only one correct answer and those where there is more than one possible answer. For example:

- O1 What does the abbreviation "GIS" stand for?
 Geographical Information System
 Geological Information System
 Geographic Interpretation System
 Geoscience Interpolation Software
- 02. Which of the following are GIS packages?
 52 ArcOIS
 53 MapInfo
 12 Idris32
 1 Netscape