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How to access

the MCQ, MSQ

and

Programming

assignments?

How to access

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assignments?

Quiz : Model

Assignment

**Due on 2018-02-04, 23:59 IST.**

1) ***1 point***

2) ***1 point***

3) ***1 point***

4) ***1 point***

**Model Assignment**

**The due date for submitting this assignment has passed.**

**Submitted assignment**

GIS stands for

Geologic Information System

Geographic Information System

Geographical Information System

Global Information System

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Geographic Information System*

Google Map navigation system uses\_\_\_\_\_\_\_\_\_\_

Choose the most appropriate answer from below

GIS plateform

GPS system

Both of above

None of above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Both of above*

GIS deals with

Complex data

Binary data

Spatial data

None of above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Spatial data*

Which of the following is a spatial data

Elevation of the Mount Everest

Depth of a coal mine in Jharia

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Minimum temperature in Delhi on 01/01/2018

Location (latitude, longitude) of a oil well

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Location (latitude, longitude) of a oil well*

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What is

Geographic

Information

System

Different

Components of

GIS

Different types

of vector data

and concept of

topology

Raster data

model and

comparisons

with vector

TIN data model

and

comparisons

with raster

Quiz :

Assignment:

Week 1

Feedback

Week-1

Answer Key

**Due on 2018-02-21, 23:59 IST.**

1) ***1 point***

2) ***1 point***

3) ***1 point***

4) ***1 point***

**Assignment: Week 1**

**The due date for submitting this assignment has passed.**

**Submitted assignment**

GIS is …………… and ……….… technology.

Digital and analogue

Spatial and analogue

Digital and spatial

Spatial and manual

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Digital and spatial*

GIS, Remote Sensing and GPS technologies are:

Generic, digital and spatial

Manual, spatial and digital

Analogue, manual and spatial

Generic, analogue and spatial

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Generic, digital and spatial*

Three basic kinds of vector entities are:

Point, Raster, Attributes

Image, Raster, Polygon

Point, Line/Polyline, Polygon

Polyline, Polygon, Raster

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Point, Line/Polyline, Polygon*

Two major differences between Grid and Image:

Both can have positive and negative, integer and real values

Grid can have only positive integer values, whereas image can have any data

Grid can have positive and negative integer and real values as cell values,whereas, image can

have only positive integer values

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5) ***1 point***

6) ***1 point***

7) ***1 point***

8) ***1 point***

9) ***1 point***

Grid can have only positive integer values as cell values, whereas, image can have both

positive and negative integer and real values as pixel values

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Grid can have positive and negative integer and real values as cell values,whereas, image can have only*

*positive integer values*

Major differences between Vector and Raster data models:

Vector and raster are same data models

Vector is continuous, whereas raster data model is discrete

Vector and raster both are discrete

Vector is discrete, whereas raster data model is continuous

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Vector is discrete, whereas raster data model is continuous*

Triangulated Irregular Network (TIN) is a:

Discrete data model like vector data

Discrete data model like raster data

Neither vector nor raster data model

Vector, Raster and TIN data models are same

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Neither vector nor raster data model*

Which data model requires less space for computer storage?

Raster

TIN

Vector

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Vector*

Which of the following are true?

Digitizing is defined as converting aerial photographs into maps

A keyboard cannot be used to digitize maps, only to enter attribute information

Digitizing from a tablet involves using a template

Digitizing involves tracing map features into a computer

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Digitizing involves tracing map features into a computer*

Spatial referencing is the process of which of the following?

Combing attribute values with locational information

Referencing geo-relational tables

Computing the reference between items in databases

Establishing the topology of spatial objects

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10) ***1 point***

11) ***1 point***

12) ***1 point***

13) ***1 point***

14) ***1 point***

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Combing attribute values with locational information*

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

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Times of particular events*

Geographic Information System (GIS) is a …………… based information system designed to

accept large volumes of ………… data derived from variety of sources and to efficiently store, retrieve,

………… model and display (output) these data according to ……… defined specifications.

Manual, Special, Recover, All

Manual, Temporal, Analyses, User

Computer, Spatial, Analyses, User

Computer, Timely, Delete, Not

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Computer, Spatial, Analyses, User*

By definition a GIS must include:

A method for storing demographic information

A method for scanning maps to produce raster files

A method for digitizing maps to produce vector files

Data analysis functions

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Data analysis functions*

Which of the following statement is true of the history of GIS?

Public utilities were early users of automated mapping and GIS technologies.

The development of the first true GIS depended upon the invention of the microcomputer in the

early 1980s.

Some of the first applications were groundwater exploration.

Municipal government agencies have been slow to adopt GIS.

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Public utilities were early users of automated mapping and GIS technologies.*

The TIN model represents a surface as a set of:

Contiguous and non-overlapping triangles

Contiguous and overlapping triangles

Non-contiguous and overlapping triangles

Non-contiguous and non-overlapping triangles

**No, the answer is incorrect.**

**Score: 0**

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15) ***1 point***

16) ***1 point***

17) ***1 point***

18) ***1 point***

19) ***1 point***

20) ***1 point***

**Accepted Answers:**

*Contiguous and non-overlapping triangles*

GIS is unique because:

GIS handles spatial information

GIS handles special information

GIS handles attributes

GIS handles graphics

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*GIS handles spatial information*

Name five components of GIS

Software, Data, Methods, Theory, Printers

Hardware, Software, Data, Methods, People

Hardware, Software, Maps, Data, Theory

Software, Equations, Maps, Theory, People

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Hardware, Software, Data, Methods, People*

Image can have only ………….…integer pixel values, whereas grid can have ………….….

and ………….….real and …….……..cell values.

Negative, Negative, Positive, Integer

Positive, Negative, Negative, Integer

Positive, Positive, Negative, Integer

Negative, Positive, Positive, Real

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Positive, Positive, Negative, Integer*

Human factors influence the success of GIS as a decision support tool.

False

True

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*True*

Reality can be represented in GIS as a series of layers or as objects.

False

True

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*True*

Attribute data are one type of spatial data.

True

False

**No, the answer is incorrect.**

**Score: 0**

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**Accepted Answers:**

*False*

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Non-spatial

data and their

types

Raster data

compression

techniques

Spatial

database

systems and

their types

Pre-processing

of spatial

datasets

Geo-referencing

Quiz :

Assignment:

Week 2

Feedback

Week-2

Answer Key

**Due on 2018-02-21, 23:59 IST.**

1) ***1 point***

2) ***1 point***

3) ***1 point***

4) ***1 point***

**Assignment: Week 2**

**The due date for submitting this assignment has passed.**

**Submitted assignment**

Relatively Quadtrees raster data compression technique provides:

High compression

No compression

Less compression

Maximum compression

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*High compression*

MrSID raster data compression technique can provide compression upto:

30:1

40:1

50:1

60:1

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*50:1*

How many types of resampling techniques presently known in GIS?

4

3

2

1

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*3*

During data generalization, number of nodes of a polyline / polygon are:

Increased

No change

Reduced

None of the above

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5) ***1 point***

6) ***1 point***

7) ***1 point***

8) ***1 point***

9) ***1 point***

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Reduced*

What does the abbreviation DBMS stand for?

Digital Base Mapping System

Database Manipulation Software

Data Borrowing and Movement Software

Database Management System

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Database Management System*

Which database model is most commonly used in GIS:

Hierarchical

Network

Relational

Object-Oriented

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Relational*

In which database tables are related by sharing common entity characteristic(s):

Hierarchical

Network

Relational

Object-Oriented

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Relational*

The advantage of Standard Query Language (SQL) in relation to GIS databases?

It is special

It is simple and easy to understand

It uses a true-English style of questioning

It is good at handling geographical concepts

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*It is good at handling geographical concepts*

How many attributes, raster data unit can have?

1

2

3

Infinite

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*1*

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10) ***1 point***

11) ***1 point***

12) ***1 point***

13) ***1 point***

14) ***1 point***

15) ***1 point***

How many attributes, vector data can have?

1

2

3

Theoretically infinite

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Theoretically infinite*

How many basic kinds of attributes so far know in GIS domain?

4

5

6

7

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*6*

Nominal attributes are:

Described by name and with no specific order

Always numeric values with specific order

Always numeric values with no specific order

Described by name and with specific order

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Described by name and with no specific order*

A nominal attribute can be:

Only numeric

Only alpha-numeric

Only alphabets

Numeric, alpha-numeric and alphabets

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Numeric, alpha-numeric and alphabets*

Stream ordering can be represented successfully as:

Nominal attribute

Ratio attribute

Ordinal attribute

Interval attribute

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Ordinal attribute*

Ratio attributes have the same characteristics as interval variables, but in addition, these

have:

No order

No starting point

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16) ***1 point***

17) ***1 point***

18) ***1 point***

19) ***1 point***

20) ***1 point***

No order neither starting point

Zero or starting point

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Zero or starting point*

Which is the key characteristic of an RDBMS?

It cannot use SQL

Tables are linked by common data known as keys

Data are organized in a series of three-dimensional tables

Keys may have multiple occurrences in the database

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Tables are linked by common data known as keys*

What is a 'tuple'?

An attribute attached to a record

Another name for a table in an RDBMS

A row or record in a database table

Another name for the key linking different tables in a database

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*A row or record in a database table*

JPG image format is also a type of:

Destructive compression tool

Constructive compression tool

Simple compression tool

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Destructive compression tool*

In georeferencing, if a user chooses third order polynomial equation, then minimum number

of required GCPs required are:

10

12

13

14

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*10*

In Georeferencing the y-scale (E) is ……… because the origins of an image and a

geographic coordinate system are different.:

Positive

Negative

Square root

None of the above

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**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Negative*

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Different map

projections

Spatial

Interpolation

Techniques

Digital elevation

models (DEM)

and different

types of

resolutions

Quality

assessment of

freely available

DEMs

GIS analysis

part 1 (Simple

primary

operations)

Quiz :

Assignment:

Week 3

Feedback

Week-3

Answer Key

**Due on 2018-02-28, 23:59 IST.**

1) ***1 point***

2) ***1 point***

3) ***1 point***

4) ***1 point***

**Assignment: Week 3**

**The due date for submitting this assignment has passed.**

**Submitted assignment**

Which are freely available DEMs?

SRTM-DEM and Aster-GDEM

USGS-DEM and Aster-GDEM

USGS-DEM and SRTM-DEM

All of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*All of the above*

Currently, which DEMs are having spatial resolution up to 30m:

USGS-DEM

USGS-DEM and SRTM-DEM

SRTM-DEM and Aster-GDEM

USGS-DEM, SRTM-DEM and Aster-GDEM

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*SRTM-DEM and Aster-GDEM*

Generally, which DEM is most suitable for highly rugged terrain:

Aster-GDEM

USGS-DEM

SRTM-DEM

USGS-DEM, SRTM-DEM and ASTER-GDEM

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Aster-GDEM*

Spatial resolution may best be defined as:

The accuracy and precision of the data

The overall quality of a dataset

The smallest unit or measurement into which data can be disaggregated

The smallest feature that can be mapped or measured

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5) ***1 point***

6) ***1 point***

7) ***1 point***

8) ***1 point***

9) ***1 point***

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*The smallest feature that can be mapped or measured*

What is a model?

A model is a simplified representation of reality

A model is a method for storing spatial data

A model is a suite of computer programs

A model is a set of instructions to a GIS

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*A model is a simplified representation of reality*

Which of the following spatial interpolation techniques is an example of a local, exact, abrupt

and deterministic interpolator?

TIN

Spline

Thiessen polygons

Spatial moving average

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Thiessen polygons*

What is the difference between slope and aspect?

Slope is the direction of the fall line, while aspect is the gradient of the fall line.

Slope is the distance down the fall line from the top of the slope to its bottom, while aspect is

the percentage gradient of this line averaged over its full distance

Slope is the gradient directly down the fall line, while aspect is the direction of the fall line

relative to north.

Slope is the gradient of the fall line relative to vertical, while aspect is the direction of the fall line

relative to the line of greatest slope.

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Slope is the gradient directly down the fall line, while aspect is the direction of the fall line relative to north.*

Map projections are used to represent:

3D Earth in to 2D Map

3D Earth in to 1D Map

2D Earth in to 3D Map

4D Earth in to 3D Map

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*3D Earth in to 2D Map*

Change from one map projection to another will bring changes in:

Thickness of continents

Shape and location of continents

Shape and area of continents

All of the above

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10) ***1 point***

11) ***1 point***

12) ***1 point***

13) ***1 point***

14) ***1 point***

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Shape and area of continents*

Generally, each country is having its own map projection because:

Every country would like to represent its correct shape and size

It is located uniquely on the globe

Every country having different shape and size

All are correct

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*All are correct*

Spatial interpolation is the procedure of estimating the value of properties at:

Observational location

Un-sample sites

Sample sites

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Un-sample sites*

Generally, which vector data is used for spatial interpolation:

Point

Polyline

Polygon

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Point*

Exact method of point-based interpolation is also known as:

Spline method

Inverse Distance Weighted method

Thiessen polygons method

Kriging method

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Thiessen polygons method*

A barrier is a ……… dataset used as a breakline that limits the search for input sample

points.

Point

Polygon

Polyline

Pixel

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Polyline*

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15) ***1 point***

16) ***1 point***

17) ***1 point***

18) ***1 point***

19) ***1 point***

20) ***1 point***

If a cell of DEM is having 30m resolution, how much ground area it would represents:

30 m2

60 m2

90 m2

120 m2

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*90 m2*

DEMs can be prepared from :

Raster stereo pair

Contours

InSAR technique

All the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*All the above*

A DEM can have:

No attribute

Single attribute

Two attributes

Multiple attributes

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Single attribute*

The shape of unit of DEM can only be:

Rectangular

Circular

Square

Triangle

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Square*

10 m spatial resolution is ……. over 20 m spatial resolution data:

Better

Inferior

No change

Lesser

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Better*

In GIS, which type of classification technique is known?

One-to-One

One-to-Many

Many-to-One

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All of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*All of the above*

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GIS Anaysis

Part 2 (

Overlaying

Operations)

GIS Analysis

Part 3 (Buffer

Analysis)

Classification

Methods

Errors in GIS

and Key

elements of

maps

Limitations of

GIS

Quiz :

Assignment:

Week 4

Feedback

Week-4

Answer key

**Due on 2018-03-07, 23:59 IST.**

1) ***1 point***

2) ***1 point***

3) ***1 point***

4) ***1 point***

**Assignment: Week 4**

**The due date for submitting this assignment has passed.**

**Submitted assignment**

The equal interval method divides the range of attribute values into:

Random sized sub-ranges

Based on their area

Equal sized sub-ranges

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Equal sized sub-ranges*

Which type of attributes classification method finds groupings and patterns inherent in data:

Equal interval

Quantile

Equal area

Natural Breaks

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Natural Breaks*

………….. is a statement of the smallest unit of measurement to which data can be recorded:

Error

Inaccuracy

Accuracy

Precision

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Precision*

………….. is a statistical concept which states the likelihood or probability that a particular

set of measurements are within certain range of true value:

Error

Inaccuracy

Accuracy

Precision

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5) ***1 point***

6) ***1 point***

7) ***1 point***

8) ***1 point***

9) ***1 point***

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Accuracy*

Map overlay operations are based on:

Boolean Logic

Deductive

Inductive

All of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Boolean Logic*

The intersection A ∩ B of two sets A and B is the set that contains all elements of A that also

belong to B:

False

No change

True

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*True*

The rate of change of elevation is called:

Gradient

Aspect

Gradient slope

Slope

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Slope*

The direction of a slope with reference to north:

Aspect

Gradient

Slope

Slope aspect

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Aspect*

The maximum slope is called the gradient:

Slope

Aspect

Gradient

None of the above

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Gradient*

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10) ***1 point***

11) ***1 point***

12) ***1 point***

13) ***1 point***

14) ***1 point***

15) ***1 point***

The two most commonly used terrain parameters are:

Slope and gradient

Aspect and gradient

Aspect and shadow

Slope and aspect

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Slope and aspect*

Buffering technique results in area:

Reduction

Deduction

Expansion

No change

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Expansion*

Spread functions evaluate phenomena that:

Spread, dilute or accumulate with distance

Only dilute with distance

Reduce with distance

Remains same

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Spread, dilute or accumulate with distance*

How many type of attributes classification methods are known in GIS:

7

6

5

4

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*6*

In GIS errors:

Reduces

Conceals

Propagates

Congregates

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Propagates*

‘No data’ is a:

Value

Zero

Always equal to 1

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16) ***1 point***

17) ***1 point***

18) ***1 point***

19) ***1 point***

20) ***1 point***

Nothing

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Value*

What is reclassification?

The process of simplifying data in a data layer.

An analytical technique based on point data.

The process of combining one or more data ranges into a new data range to create a new data

layer.

The process of combing two or more data layers.

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*The process of combining one or more data ranges into a new data range to create a new data layer.*

What is a model?

A model is a suite of computer programs.

A model is a set of instructions to a GIS.

A model is a method for storing spatial data.

A model is a simplification of reality.

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*A model is a simplification of reality.*

Which of the following cannot be modelled using a DEM?

Slope

Aspect

Geology

Runoff

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*Geology*

What is meant by the term 'accuracy'?

The overall quality of the data

The extent to which a value approaches its true value

The level of detail at which data is stored

The lack of bias in the data

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*The extent to which a value approaches its true value*

What is meant by the term 'precision'?

The level of detail at which data is stored

The lack of bias in the data

The extent to which a value approaches its true value

The overall quality of the data

**No, the answer is incorrect.**

**Score: 0**

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**Accepted Answers:**

*The level of detail at which data is stored*

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