



Unit 4 - Week 3

Course outline

How to access the portal ?

Week 1

Week 2

Week 3

- ☒ 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

Week 4

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Assignment: Week 3

The due date for submitting this assignment has passed. **Due on 2018-02-28, 23:59 IST.**

Submitted assignment

1) Which are freely available DEMs?

1 point

- ☐ 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

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

1 point

- ☐ 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

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

1 point

- ☐ Aster-GDEM
- ☐ USGS-DEM
- ☐ SRTM-DEM
- ☐ USGS-DEM, SRTM-DEM and ASTER-GDEM

No, the answer is incorrect.

Score: 0

Accepted Answers:

Aster-GDEM

4) Spatial resolution may best be defined as:

1 point

- ☐ 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

No, the answer is incorrect.

Score: 0

Accepted Answers:

The smallest feature that can be mapped or measured

5) What is a model?

1 point

- ☐ 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

6) Which of the following spatial interpolation techniques is an example of a local, exact, abrupt and deterministic interpolator? **1 point**

- ☐ TIN
- ☐ Spline
- ☐ Thiessen polygons
- ☐ Spatial moving average

No, the answer is incorrect.

Score: 0

Accepted Answers:

Thiessen polygons

7) What is the difference between slope and aspect?

1 point

- ☐ 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.

8) Map projections are used to represent:

1 point

- ☐ 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

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

1 point

- ☐ Thickness of continents
- ☐ Shape and location of continents
- ☐ Shape and area of continents
- ☐ All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Shape and area of continents

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

1 point

- ☐ 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

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

1 point

- ☐ Observational location
- ☐ Un-sample sites
- ☐ Sample sites
- ☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Un-sample sites

12 Generally, which vector data is used for spatial interpolation:

1 point

- ☐ Point
- ☐ Polyline
- ☐ Polygon
- ☐ None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Point

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

1 point

- ☐ Spline method
- ☐ Inverse Distance Weighted method
- ☐ Thiessen polygons method
- ☐ Kriging method

No, the answer is incorrect.

Score: 0

Accepted Answers:

Thiessen polygons method

14 A barrier is a dataset used as a breakline that limits the search for input sample points.

1 point

- ☐ Point
- ☐ Polygon
- ☐ Polyline
- ☐ Pixel

No, the answer is incorrect.

Score: 0

Accepted Answers:

Polyline

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

1 point

- ☐ 30 m²
- ☐ 60 m²
- ☐ 90 m²
- ☐ 120 m²

No, the answer is incorrect.

Score: 0

Accepted Answers:

90 m²

16) DEMs can be prepared from :

1 point

- ☐ Raster stereo pair
- ☐ Contours
- ☐ InSAR technique
- ☐ All the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

All the above

17) A DEM can have:

1 point

- ☐ No attribute
- ☐ Single attribute
- ☐ Two attributes
- ☐ Multiple attributes

No, the answer is incorrect.

Score: 0

Accepted Answers:

Single attribute

18) The shape of unit of DEM can only be:

1 point

- ☐ Rectangular
- ☐ Circular
- ☐ Square
- ☐ Triangle

No, the answer is incorrect.

Score: 0

Accepted Answers:

Square

19) 10 m spatial resolution is over 20 m spatial resolution data:

1 point

- ☐ Better
- ☐ Inferior
- ☐ No change
- ☐ Lesser

No, the answer is incorrect.

Score: 0

Accepted Answers:

Better

20) In GIS, which type of classification technique is known?

1 point

- ☐ One-to-One
- ☐ One-to-Many
- ☐ Many-to-One

☐ All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of the above

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