

Course outline

How does an NPTEL online course work?

Week Zero: Assignment Zero

Week 01

Week 02

Week 03

Week 04

week 05

week 06

week 07

week 08

week 09

Week 10

 Common derivatives of DEMs - Slope and aspect-03

 Demonstration through GIS software

 DEMs derivatives-1

 DEMs derivatives-2

 DEMs derivatives-3

 Quiz : Assainment 10

week 11

week 12

DOWNLOADS

Feedback Form

Text transcripts

Assignment 10

The due date for submitting this assignment has passed.

Due on 2021-03-31, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which of the following cannot be modelled using a DEM?

1 point

- Slope
- Aspect
- Geology
- Runoff

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
Geology

2) The rate of change of elevation is called:

1 point

- Gradient
- Slope
- Aspect
- Gradient slope

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
Slope

3) Resolution may best be defined as:

1 point

- The accuracy and precision of the data
- The overall quality of a dataset
- The smallest feature that can be mapped or measured
- The smallest unit or measurement into which data can be disaggregated

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
The smallest feature that can be mapped or measured

4) What is the difference between slope and aspect?

1 point

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

 5) A pixel with 1m spatial resolution covers an area of 1m². How much area a cell with 0.1m spatial resolution in a DEM would cover?

1 point

- 0.1m²
- 0.001m²
- 100cm²
- 10cm²

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
100cm²

6) What is meant by the term 'precision'?

1 point

- The extent to which a value approaches its true value
- The lack of bias in the data
- The level of detail at which data is stored
- The overall quality of the data

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
The level of detail at which data is stored

7) What is meant by the term 'data quality'?

1 point

- The lineage of the data
- The generalization present in the source data
- The resolution of the data
- The inherent quality of the data as characterized by its accuracy, precision, bias, level of error, etc.

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
The inherent quality of the data as characterized by its accuracy, precision, bias, level of error, etc.

8) What is positional error?

1 point

- Error due to incorrect labelling or quantification of features
- Error associated with displacement of the object from its true location
- Error in the source document due to cartographic bias
- Error due to imprecision in coordinate registration

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
Error associated with displacement of the object from its true location

9) When an error in a dataset leads to the commission of another error this is called error:

1 point

- Propagation
- False precision
- Horizontal error
- Cascading

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
Propagation

10) Spatial data can be described as:

1 point

- Data containing an area attribute
- Data that has a geographic coordinates
- Data concerned with measurements
- Data containing direction of a sloping surface

 No, the answer is incorrect.
Score: 0

 Accepted Answers:
Data that has a geographic coordinates