

PCC GIS Assessment, 2017

The PCC GIS Assessment is designed to survey general GIS knowledge of incoming and outgoing students of the PCC GIS Certificate program.

Questions 1 and 2 are designed to help instructors understand your current level of GIS experience. Questions 3 through 18 are designed to measure spatial thinking and knowledge of GIS methods and software.

Answer the questions to the best of your ability. If you do not know the answer for a question, or are unable to make an educated guess, simply leave the question blank.

There are 18 questions altogether, which should take 15-20 minutes to complete.

Thank you!

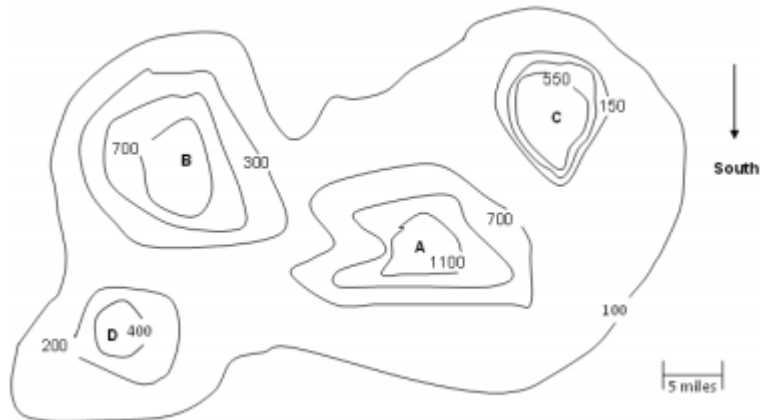
Student name (please print):

1. Which of the following most closely describes your level of experience with GIS?
 - a. Less than 3 months
 - b. 3 to 6 months
 - c. 6 months to 1 year
 - d. Greater than 1 year

2. How many PCC GIS classes have you completed?
 - a. 1
 - b. 2
 - c. 3
 - d. 4 or more

3. Which tool should be used to adjust the extent of a map by changing it from a large scale to a small scale?
 - a. Zoom In
 - b. Zoom Out
 - c. Find
 - d. Identify

4. You are standing at the peak of mountain C looking south. Name in clockwise order the other mountain(s) you can see:



- a. A, D, B
b. B, D, A
c. D, A, B
d. C, A, D
e. A, B
5. Which ArcMap functionality should be used to create a custom tool that strings together geoprocessing operations?
- a. ArcToolbox
b. ModelBuilder
c. Query Builder
d. Spatial Analyst
6. What is the intended purpose of raster pyramids?
- a. To decrease disk space usage of a large raster dataset
b. To decrease disk space usage of a small raster dataset
c. To increase display performance of a large raster dataset
d. To increase display performance of a small raster dataset
7. An ArcMap user must create a geodatabase containing 12 GB of feature data. Three editors must be able to simultaneously edit different feature classes.

What kind of geodatabase should the user create?

- a. File
b. Workgroup
c. Desktop
d. Personal

8. Which ArcGIS extension provides tools for integrated raster-vector analysis?
- Tracking Analyst
 - Spatial Analyst
 - Business Analyst
 - Network Analyst
9. Which two interfaces can be used to change the display name of a layer in an ArcMap map document? (Choose two).
- Overview window
 - Catalog window
 - Windows File Explorer
 - Table of contents
10. Which file extension is a type of raster?
- SHP
 - SHX
 - TIFF
 - DBF
11. Which ArcMap view should be used to design and author a map to print or export?
- Data
 - Layout
 - Map
 - Page
12. A complex mapping project involves adding labeled contours to the final output. The contours must use a centered, curved placement position. The labels must align in ladders and be masked out from the underlying contour line features.

Which type of mask should be used to achieve this effect?

- Annotation
- Halo
- Feature outline
- Intersecting layers

13. Saraya is planting an orange grove in California's San Joaquin Valley. Below is a map of California and the San Joaquin Valley.



Oranges cannot tolerate temperatures below 30 degrees Fahrenheit. What additional map or layer may help her determine the best part of the Valley to plant oranges?

- a. Minimum Temperature Map
 - b. Average Temperature Map
 - c. Maximum Temperature Map
 - d. Today's Temperature Map
14. Which ArcGIS query expression should be used to select points that are higher than 1,000 kilometers in elevation with a population that is at or below 5,000 people?
- a. ELEVATION > 1000 AND POPULATION <= 5000
 - b. ELEVATION < 1000 OR POPULATION < 4999
 - c. ELEVATION > 1000 AND POPULATION >= 4999
 - d. ELEVATION > 1000 OR POPULATION > 5000
15. A layer with no spatial reference is the first layer added to a blank map document.

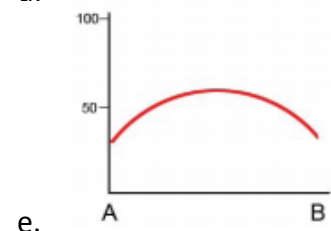
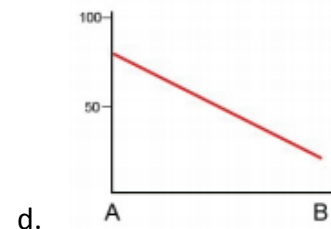
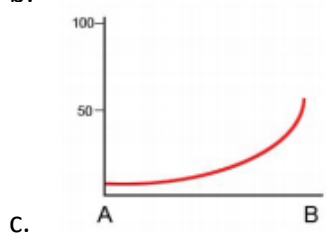
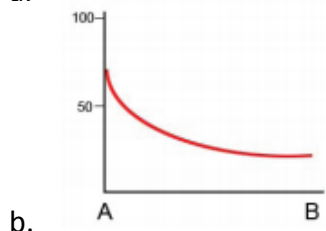
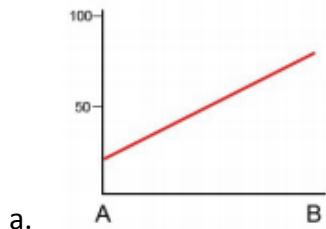
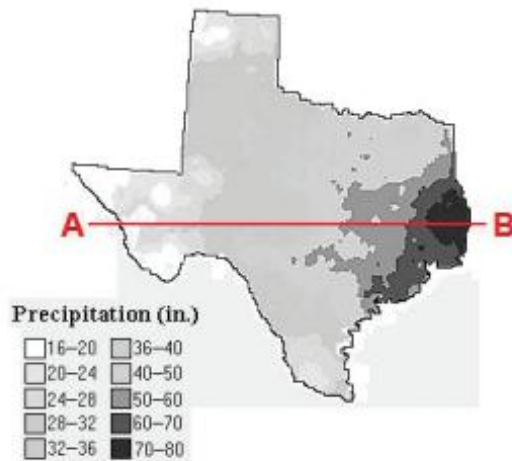
What coordinate system is the data frame set to?

- a. The one from the map document that was last opened on the user's computer
- b. Unknown, until the coordinate system is manually set for the data frame
- c. Unknown, until another layer with a known coordinate system is added to the data frame
- d. WGS84

16. Which ArcGIS for Desktop app is mainly used to organize and manage GIS data content?

- a. ArcToolbox
- b. ArcReader
- c. ArcGlobe
- d. ArcCatalog

17. The map below shows annual precipitation of Texas. If you draw a graph showing change of Texas annual precipitation between A and B, the graph will be _____ (choose closest one).



18. A crime analyst must generate a quantitative map showing the density of crimes per census block. The crime data has been collected as points representing locations where crimes occurred. Mapping individual crimes is not possible due to the large numbers of points per census district. As a result, the crime analyst has generated a summary of the total number of crimes per census district and assigned each density value to individual census district polygons.

Which renderer should the crime analyst use to show the crime density per census district in a way that will help the police determine the areas where they should increase patrols?

- a. Dot Density
- b. Proportional Symbols
- c. Unique Values
- d. Bar/Column Chart