

Introduction to GIS and GPS for Land Surveyors Final Exam

1. The acronym GPS stands for:
 - a. Global Positioning System
 - b. Global Pole Stand
 - c. Grand Project Survey
 - d. Global Positioning Science
2. The "S" in the acronym GIS stands for:
 - a. System
 - b. Science
 - c. Strategy
 - d. System or Science
3. The United States GPS consists of all of the following segments EXCEPT:
 - a. User segment
 - b. Distance segment
 - c. Control segment
 - d. Space segment
4. Land surveyors use the GPS in applications or operations that include the following:
 - a. Tracking the movement of ocean oil spills
 - b. Synchronization of time for power transmission
 - c. Search and rescue
 - d. None of the above
5. A coordinate system is made up of all of the following EXCEPT:
 - a. Scale
 - b. Datum
 - c. Ellipsoid
 - d. Projection
6. In order to project spherical coordinates onto a planar coordinate system for mapping, at least one of the following properties must be sacrificed:
 - a. Area
 - b. Distance
 - c. Direction
 - d. All of the above
7. Method(s) used to collect GIS data include:
 - a. Scanning paper maps
 - b. Remote sensing
 - c. COGO transformations
 - d. All of the above

8. GPS technology involves the use of:
 - a. Layer files
 - b. NAVSTAR satellites
 - c. Global Power Stations
 - d. Local radio telemetry
9. GPS coordinates are captured and displayed in what coordinate reference system?
 - a. NAD83
 - b. NAD27
 - c. WGS85
 - d. WGS84
10. Coordinate locations can be collected by a land surveyor using what method(s)?
 - a. Static surveying
 - b. Real-time kinematic surveying
 - c. Remote sensing
 - d. All of the above
11. Satellite signals are radio waves that can be transmitted in which civilian frequency band?
 - a. L1
 - b. L2
 - c. L3
 - d. L1 or L2
12. GPS augmentation system(s) includes the following:
 - a. WAAS
 - b. CORS
 - c. Both WAAS and CORS
 - d. None of the above
13. Standard GPS accuracies without augmented correction systems are provided at which range with a 95% certainty of true position?
 - a. 2 – 4 m
 - b. 95 – 100 m
 - c. 1 – 3 m
 - d. <1 m
14. Vertical positioning errors using GPS are typically larger than horizontal positioning errors to what magnitude?
 - a. 0.6 – 1.5 times
 - b. 2 – 4 times
 - c. 1.6 – 3 times
 - d. None of the above
15. The three types of GPS roving receivers include all of the following EXCEPT:
 - a. Recreational grade
 - b. Mapping grade
 - c. Commercial grade
 - d. Survey grade

16. Collecting positions on features such as property boundaries, culvert inverts, roadway baselines, easements, or monuments is more likely to be conducted by:
 - a. Municipal utility workers
 - b. Surveyors
 - c. Engineers
 - d. Geocachers
17. Errors from GPS surveying can result from which of the following?
 - a. Antenna strength
 - b. Distance between your rover unit and the base receiver
 - c. Signal bounce from an obstruction
 - d. All of the above
18. The GIS primary functions performed on data include all of the following EXCEPT:
 - a. Analyzing
 - b. Distributing
 - c. Querying
 - d. Storing
19. Components of vector geographic information include:
 - a. Attributes
 - b. Projections
 - c. Geometry
 - d. Attributes and Geometry
20. When purchasing mapping or survey-grade GPS receivers, consideration should be given to all of the following factors EXCEPT:
 - a. Type of data being collected
 - b. Accuracy of the data needed
 - c. Field software capabilities
 - d. Ability to determine your position in relation to dinner after all data has been captured that day
21. GPS files generated from the use of survey receivers or remote sensors include which of the following?
 - a. DXF
 - b. LAS
 - c. GeoTIFF
 - d. All of the above
22. Image files and raster layers can be found in the following format(s):
 - a. GeoTIFF
 - b. GRID
 - c. DEM
 - d. All of the above
23. Geodatabases can hold all of the following EXCEPT:
 - a. CAD datasets
 - b. Rasters
 - c. Coverages
 - d. A spatial reference system

24. TINs, or Triangulated Irregular Network files, are a form of vector data used to simulate which one of the following?
- a. Point clouds
 - b. CAD files
 - c. Terrain surfaces from elevation points
 - d. Irregular contour raster files
25. A metadata file accompanies a GIS file and provides identifying properties such as:
- a. Coordinate system information
 - b. Raster resolution
 - c. The extent or bounds of your data
 - d. All of the above