**Chapter 14**

**See the World in 3D**

1. If only one height value can be assigned to a coordinate, then the data is considered fully 3D.

 a. True

 b. False

2. Ideally, 3D models should be georeferenced.

 a. True

 b. False

3. The value used to represent the height of an object above whatever surface it’s standing on is:

 a. h.

 b. x.

 c. y.

 d. z.

4. The result of extruding a polygon is a:

 a. triangle.

 b. block.

 c. sphere.

 d. rhombus.

5. The value applied to objects to move them off ground level is the:

 a. extrusion.

 b. base height.

 c. offset.

 d. prism value.

6. A base height represents the elevation of the terrain above a vertical datum.

 a. True

 b. False

7. In 3D modeling, a block has at least \_\_\_ faces.

 a. 3

 b. 4

 c. 6

 d. 8

8. A texture used in designing a 3D model is just a graphic file.

 a. True

 b. False

9. The extruded shapes on a map are called:

 a. 3D blocks.

 b. prisms.

 c. polygons.

 d. components.

10. Esri's ArcGlobe allows for 3D visualization on a global level.

 a. True

 b. False

11. The pre-made 3D objects in Google SketchUp are called:

 a. blocks.

 b. extrusions.

 c. projections.

 d. components.

12. Which statement is NOT true of SKP files?

 a. They are created through the use of Google SketchUp.

 b. Only one SKP file can be open at a time.

 c. SKP files allow you to see how multiple buildings look next to one another.

 d. They consist of information about the polygons that make up the structure and the textures applied.

13. KMZ files cannot be used in Google Earth.

 a. True

 b. False

14. Trimble’s 3D warehouse is a community-based repository of objects created in Google SketchUp.

 a. True

 b. False

15. A KML file is a compressed version of a KMZ file.

 a. True

 b. False

16. An anaglpyh is created by slightly offsetting the features in an existing image and highlighting them in two different colors.

a. True

b. False

17. The two colors used in anaglyphs are black and white.

a. True

b. False

18. When you watch a 3D movie, you are watching stereoscopic 3D at work.

a. True

b. False

19. Which of the following is NOT part of a GeoWall setup?

a. Two DLP projectors

b. Polarizing filters

c. A spherical projection surface

d. 3D glasses

20. The 3D visualization and design component of Esri’s ArcGIS for Desktop program used a “local” scales is:

a. ArcScene

b. ArcSketchUp

c. ArcView

d. ArcExplorer

21. Stereoscopic 3D mimics the way your eyes perceive depth by two images simultaneously from slightly different angles.

a. True

b. False

22. Geospatial 3D modeling and high-budget Hollywood CGI are closely related technologies.

a. True

b. False

23. Extrusion can turn a \_\_\_\_\_\_\_\_ into a \_\_\_\_\_\_\_\_\_\_ .

a. texture; z-value

b. footprint; block

c. orthophoto; SKP

d. KML; KMZ

24. If the building you are modeling is located at 900 feet above sea level, what do you use to make sure the building is not placed underground when merged with other geospatial data?

a. extrusion

b. vertical exaggeration

c. prisms

d. base heights

25. SketchUp allows you to import Google imagery and location information to use during modeling.

a. True

b. False