

Chapter 2 Test Bank Questions

Multiple Choice:

1. A datum represents
 - a. **a reference surface used in computing coordinates.**
 - b. a zero point from which to calculate elevations.
 - c. the origin point for longitude measurements.
 - d. the curvature of Earth, used in computing latitude and longitude.

2. A model of Earth based on mean sea level is
 - a. **geoid.**
 - b. spheroid.
 - c. ellipsoid.
 - d. the Great Circle.

3. Where is the WGS84 datum used for measurements?
 - a. The whole world, except for the north and south poles
 - b. Only the entire northern hemisphere
 - c. **At all points across the world**
 - d. Only in North America

4. Latitude and longitude is used as the measurement system for which of the following?
 - a. USNG
 - b. UTM
 - c. SPCS
 - d. **GCS**

5. One minute of latitude is equivalent to
 - a. 60 degrees of latitude.
 - b. 1 degree of longitude.
 - c. **60 seconds of latitude.**
 - d. 60 meters.

6. The origin point for 0 degrees longitude is
 - a. **Greenwich, England.**
 - b. Washington D.C., United States.
 - c. Paris, France.

- d. San Salvador Island, the Bahamas.
7. What marks the difference between north and south latitude?
- a. Compass Rose Line
 - b. Equator**
 - c. Prime Meridian
 - d. International Date Line
8. What marks the change between east and west longitude?
- a. Equator
 - b. Prime Meridian**
 - c. Antimeridian
 - d. International Date Line
9. The shortest distance between two points on a sphere is the
- a. Great Circle Distance.**
 - b. longitude distance.
 - c. equatorial distance.
 - d. datum distance.
10. If it is 11pm Sunday night in London, England, what day and time is it in New York City, New York?
- a. 4am Sunday
 - b. 6pm Sunday**
 - c. 4am Monday
 - d. 6pm Monday
11. A map projection is a
- a. translation of locations on Earth's surface to their corresponding locations on a flat surface.**
 - b. model of Earth with regard to size and shape of objects on Earth's surface.
 - c. representation of how time zones are distributed with respect to geographic boundaries.
 - d. system used in translating decimal degrees to other forms of measurement.
12. Each UTM zone covers how many degrees of longitude wide?
- a. 3
 - b. 6**
 - c. 15
 - d. 30

13. UTM coordinates are measured in
- degrees, minutes, and seconds.
 - miles.
 - meters.**
 - feet.
14. What is used to ensure that UTM measurements of the southern hemisphere have a positive value?
- A false northing value**
 - A false easting value
 - A false southing value
 - A false polar value
15. Each UTM zone uses a false easting value of
- 50 miles.
 - 500,000 meters.**
 - 10,000,000 feet.
 - 15 degrees of longitude.
16. How are SPCS zones determined?
- Every 3 degrees of longitude and every 3 degrees of latitude indicates a new zone.
 - Every 2,000,000 feet begins a new zone.
 - The geographic boundaries of states and counties are used.**
 - The states' outlines are used for the boundaries, and then each state is cut exactly in half.
17. The International Date Line
- is similar to the 180th meridian but bends to accommodate geographic boundaries.**
 - is similar to the Equator but bends away from it due to political boundaries.
 - marks the change from day to night.
 - exactly follows the 0 degree line of longitude.
18. The Mercator map projection will accurately keep which of the following throughout?
- Shapes**
 - Sizes
 - Distances
 - Directions