

Name: _____

Date: _____ Period: _____

Midterm Review

The Physical Setting: Earth Science

Midterm Review: Weather

1. What is the average air pressure exerted by Earth's atmosphere at sea level in millibars and inches of mercury?
 - a. 1013.25 mb and 29.92 in of Hg
 - b. 29.92 mb and 1013.25 in of Hg
 - c. 1012.65 mb and 29.91 in of Hg
 - d. 29.91 mb and 1012.65 in of Hg
2. If air has a dry-bulb temperature of 2°C and a wet-bulb temperature of -2°C , what is the relative humidity?
 - a. 11%
 - b. 20%
 - c. 36%
 - d. 67%
3. A psychrometer is used to determine which weather variables?
 - a. wind speed and wind direction
 - b. percentage of cloud cover and cloud height
 - c. air pressure and air temperature
 - d. relative humidity and dewpoint
4. In the Northern Hemisphere, surface winds around the center of a hurricane move
 - a. clockwise and inward
 - b. clockwise and outward
 - c. counterclockwise and inward
 - d. counterclockwise and outward
5. A dry-bulb temperature of 30°C and a wet-bulb temperature of 29°C were recorded at a weather station. What are the relative humidity and the most likely weather conditions?
 - a. Relative humidity is 29% with clear skies.
 - b. Relative humidity is 29% with a good chance of snow.
 - c. Relative humidity is 93% with clear skies.
 - d. Relative humidity is 93% with a good chance of rain.
6. An air mass entering Alaska from the northern Pacific Ocean would most likely be labeled on a weather map as
 - a. cP
 - b. cT
 - c. mP
 - d. mT
7. Most tornadoes in the Northern Hemisphere are best described as violently rotating columns of air surrounded by
 - a. clockwise surface winds moving toward the columns
 - b. clockwise surface winds moving away from the columns
 - c. counterclockwise surface winds moving toward the columns
 - d. counterclockwise surface winds moving away from the columns
8. Which sequence of events affecting moist air within Earth's atmosphere causes cloud formation?
 - a. rising \rightarrow expanding \rightarrow cooling \rightarrow condensation
 - b. rising \rightarrow contracting \rightarrow warming \rightarrow evaporation
 - c. sinking \rightarrow expanding \rightarrow warming \rightarrow condensation
 - d. sinking \rightarrow contracting \rightarrow cooling \rightarrow evaporation

Midterm Review: Weather

9. Most of Earth's weather events take place in the
 - a. thermosphere
 - b. stratosphere
 - c. mesosphere
 - d. troposphere

 10. Jet stream winds over the United States generally move from
 - a. east to west
 - b. west to east
 - c. north to south
 - d. south to north

 11. What is the dewpoint when the dry-bulb temperature is 8°C and the wet-bulb temperature is 2°C?
 - a. 28°C
 - b. -6°C
 - c. 3°C
 - d. -9°C

 12. The curving of the planetary winds to the right in the Northern Hemisphere is evidence of
 - a. the Coriolis effect
 - b. high- and low-pressure belts
 - c. Earth's revolution
 - d. the tilt of Earth's axis

 13. Which air mass is associated with low relative humidity and high air temperature?
 - a. maritime polar
 - b. maritime tropical
 - c. continental polar
 - d. continental tropical

 14. Which atmospheric temperature zone is located between 8 and 32 miles above Earth's surface and contains an abundance of ozone?
 - a. troposphere
 - b. mesosphere
 - c. stratosphere
 - d. thermosphere

 15. What is the dewpoint when the air temperature is 26°C and the relative humidity is 77%?
 - a. 3°C
 - b. 20°C
 - c. 22°C
 - d. 23°C

 16. Which weather variable would most likely decrease ahead of an approaching storm system?
 - a. wind speed
 - b. cloud cover
 - c. air pressure
 - d. relative humidity
-