# Air, Weather and Climate Quiz

**Multiple Choice**
*Identify the choice that best completes the statement or answers the question.*

____ 1. Average temperatures are lower near the poles because sunlight strikes the ground at an angle
a. greater than 90º.
b. smaller than 90º.
c. of 90º.
d. of 180º.

____ 2. The trade winds of the Northern and Southern Hemispheres meet at the equator in a narrow zone of weak variable winds called
a. the doldrums.
b. the wind belt.
c. subtropical jet streams.
d. prevailing winds.

____ 3. Temperature inversions can intensify the effect of smog when cool, polluted ground air is trapped by
a. a front.
b. mountains.
c. the ocean.
d. warm air.

____ 4. The dew point is the temperature at which the rate of condensation
a. equals the rate of evaporation.
b. lowers the rate of evaporation.
c. exceeds the rate of evaporation.
d. raises the rate of evaporation.

____ 5. When the air temperature decreases, the rate of evaporation
a. decreases.
b. increases.
c. may increase or decrease.
d. remains constant.

____ 6. Continental polar, maritime polar, continental tropical, and maritime tropical are types of
a. air fronts.
b. air systems.
c. air masses.
d. air flow.

____ 7. A pattern of meteorological symbols that represent the weather at a particular observing station is a
a. weather station.
b. station model.
c. satellite image.
d. weather site.

____ 8. Which of these climates is characterized by dense, lush vegetation; broadleaf plants; and high biodiversity?
a. polar
b. savanna
c. desert
d. rain forest

____ 9. Which of the following will NOT help reduce $CO_2$ levels in the atmosphere?
a. using public transportation
b. driving a hybrid car
c. burning more fossil fuels
d. recycling

____ 10. After Earth absorbs infrared rays that heat the ground, what kind of energy does the atmosphere absorb from the ground?
a. albedo
b. thermal
c. solar
d. mirage

____ 11. In general, the Coriolis effect is noticeable only on objects that move very fast or travel
a. long distances.
b. during daylight hours.
c. from north to south.
d. along a wind belt.

____ 12. Upslope fog forms through
a. adiabatic cooling.
b. mixing and warming.
c. lifting and cooling.
d. advective cooling.

____ 13. What have meteorologists concluded about cloud seeding?
a. It always causes a significant increase in precipitation.
b. It never produces precipitation.
c. It sometimes increases and sometimes decreases precipitation.
d. It has no effect on precipitation.

____ 14. Clouds that often bring thunderstorms are
a. nimbostratus.
b. stratocumulus.
c. altocumulus.
d. cumulonimbus.

____ 15. Where would the air contain the most moisture?
a. over Hawaii
b. over Arizona
c. over the Arctic Circle
d. over the Rocky Mountains

____ 16. When a bend forms in a cold front, it begins the process of creating an area of low pressure with rotating wind that moves toward the rising air of the central low-pressure region—a storm known as a(n)
a. midlatitude cyclone.
b. occluded front.
c. anticyclone.
d. stationary front.

____ 17. An instrument package that is carried high into the atmosphere by a helium-filled balloon to measure relative humidity, air pressure, and air temperature is called a(n)
a. forecaster.
b. radiosonde.
c. radar.
d. anemometer.

____ 18. An air mass that originates in the Pacific or Atlantic Ocean and brings warm, moist air is called
a. continental polar.
b. continental tropical.
c. maritime polar.
d. maritime tropical.

____ 19. Which climate has little or no life, temperatures below freezing year-round, and high winds?
a. savanna
b. tundra
c. polar icecap
d. subarctic

____ 20. What do fossils of flower pollen and plants with broad leaves indicate?
a. cool climates
b. warm climates
c. ice ages
d. underwater climates