

Practice Quiz - Meteorology

1) Which one of the following are the three most abundant gases in the dry atmosphere?

- A) oxygen, argon, carbon dioxide
- B) argon, carbon dioxide, nitrogen
- C) carbon dioxide, nitrogen, oxygen
- D) nitrogen, oxygen, argon

2) Ozone is concentrated in the _____.

- A) troposphere
- B) mesosphere
- C) stratosphere
- D) ionosphere

3) The lowest layer of the atmosphere is the _____.

- A) troposphere
- B) mesosphere
- C) stratosphere
- D) ionosphere

4) One half of the atmosphere is below _____.

- A) 1 km (0.6 miles)
- B) 3.5 km (2.1 miles)
- C) 5.6 km (3.5 miles)
- D) 7.2 km (4.3 miles)
- E) 10 km (6 miles)

5) Solar rays will strike the Tropic of Capricorn at an angle of 90 degrees on _____.

- A) June 21
- B) March 21
- C) September 21
- D) December 21

6) Which one of the following statements is true about the equinoxes?

- A) They occur in June and December.
- B) The Sun's vertical rays are striking either the Tropic of Cancer or the Tropic of Capricorn.
- C) Days and nights are equal in length everywhere.
- D) The length of daylight at the Arctic and Antarctic Circles is 24 hours.

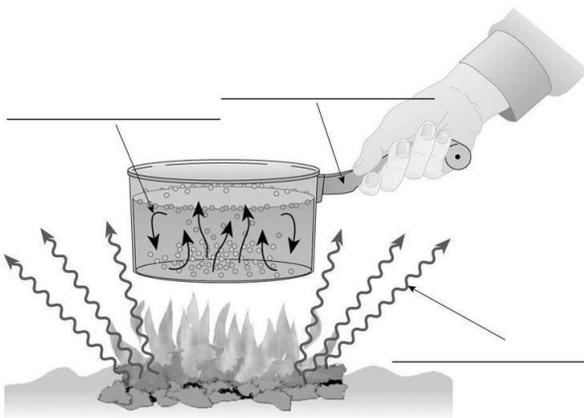
7) Earth receives energy from the Sun in this way.

- A) conduction
- B) convection
- C) radiation
- D) all of these

8) Isotherms, lines of equal temperature, are commonly used to _____.

- A) compare temperatures in different regions
- B) compare temperature variations in different regions
- C) compare temperatures over a large area
- D) compare temperature variations over a large area
- E) show how temperature changes with time

9) Label the mechanisms of heat transfer on the diagram below.



10) When water vapor condenses to form clouds, _____.

- A) the air gets colder
- B) the air gets warmer
- C) the air temperature stays the same
- D) the air temperature can change in either direction depending on other conditions

11) The process of converting a liquid to vapor is termed _____.

- A) evaporation B) sublimation C) condensation D) melting

12) The dew point is the temperature at which _____.

- A) water in the liquid state changes to vapor B) hailstones are formed
C) water vapor condenses to a liquid D) cumulus clouds change to cumulonimbus clouds

13) The most common reason that dew forms is _____.

- A) fast heating of the atmosphere when the sun first comes up in the morning
B) a rapid increase in water vapor in the air during the night
C) radiant cooling of the ground and adjacent air in the evening
D) plants give up water to the atmosphere when the temperature decreases

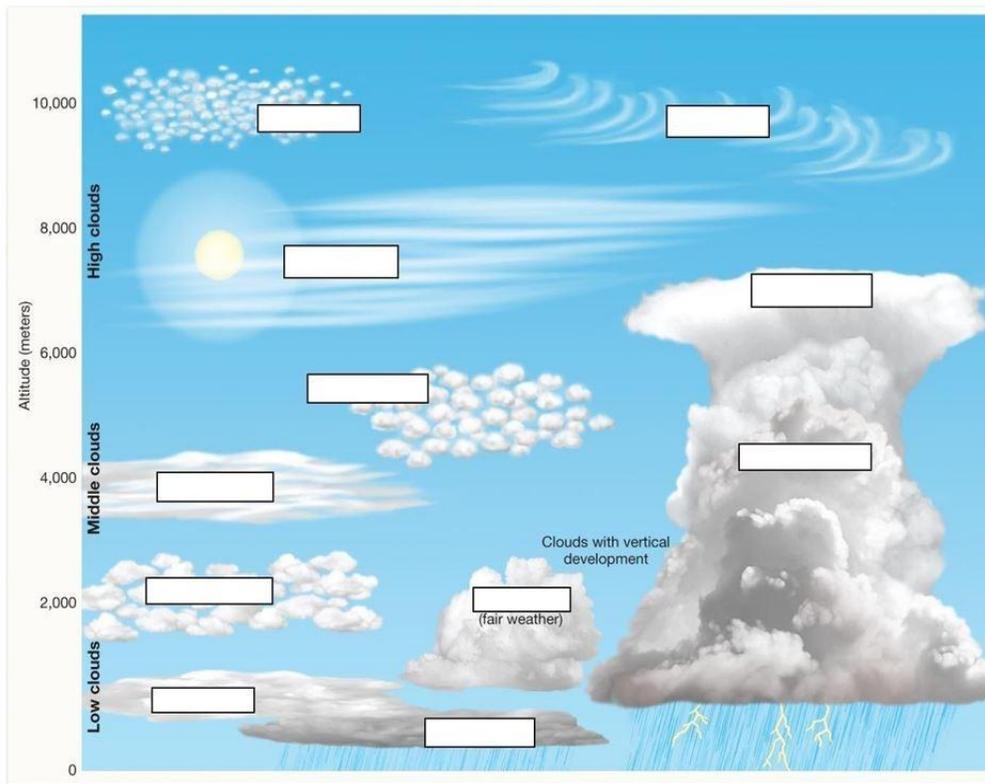
14) Clouds are classified on the basis of their _____.

- A) thickness B) height C) shape or form D) form and height E) thickness and height

15) Thunder and lightning are associated with these clouds.

- A) cirrostratus
B) cumulonimbus
C) altostratus
D) cirrus

16) Label the various clouds on the diagram below.



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17) Isobars are lines on a weather map representing what?

- A) lines of equal air pressure B) lines of equivalent air speed
C) lines of equal elevation for the tropopause D) lines showing equal density of bars

18) Low air pressure systems are usually associated with _____.
A) diverging surface winds and low pressure aloft
B) descending air and low pressure aloft
C) converging air, precipitation, and high pressure aloft
D) clear weather

19) The subpolar low (polar front) is _____.
A) a zone where the trade winds meet
B) the forward edge of the Antarctic ice cap
C) a zone where the polar easterlies and the westerlies converge
D) the boundary between frozen and liquid

20) When someone says we have a southeast wind, what direction would you look to face into the wind?
A) southeast
B) northwest
C) east
D) west

21) A land breeze usually originates during the _____.
A) evening and flows toward the land
B) day and flows toward the land
C) evening and flows toward the water
D) day and flows toward the water

22) An air mass from the Gulf of Mexico is labeled _____.
A) cP
B) mP
C) cT
D) mT

23) On a weather map, _____ fronts are shown by a line with triangular points on one side.
A) warm
B) cold
C) occluded
D) stationary

24) When an active cold front overtakes a warm front, _____.
A) the fronts cancel one another out
B) cloud formation ceases
C) an occluded front forms
D) a stationary front is created

25) What type of front is illustrated in the diagram below?

