

Meteorology Essentials

Meteorology · Answer Key · 20 Questions

1. Which layer of the Earth's atmosphere contains the majority of the planet's weather phenomena?

- A) Stratosphere
- B) Troposphere**
- C) Mesosphere
- D) Thermosphere

2. What is the name of the instrument used to measure atmospheric pressure?

- A) Anemometer
- B) Hygrometer
- C) Barometer**
- D) Thermometer

3. Which type of cloud is commonly associated with thunderstorms and heavy precipitation?

- A) Cirrus
- B) Cumulonimbus**
- C) Stratus
- D) Altocumulus

4. What is the term for the temperature at which air must be cooled to become saturated with water vapor?

- A) Dew point**
- B) Boiling point
- C) Freezing point
- D) Triple point

5. The Coriolis effect, which influences wind patterns, is caused by which of the following?

- A) Ocean currents
- B) Solar radiation
- C) Earth's rotation**
- D) Moon's gravity

6. Which scale is used to classify the intensity of tornadoes based on wind damage?

- A) Saffir-Simpson Scale
- B) Beaufort Scale
- C) Fujita Scale**
- D) Richter Scale

7. What is the primary gas that makes up the Earth's atmosphere?

- A) Oxygen
- B) Argon
- C) Carbon dioxide

D) Nitrogen

8. Which global wind pattern occurs between 30 degrees latitude and the equator?

- A) Westerlies
- B) Trade winds**
- C) Polar easterlies
- D) Doldrums

9. What does an anemometer measure?

- A) Wind speed**
- B) Humidity
- C) Visibility
- D) Precipitation

10. In meteorology, what is a 'front'?

- A) A high-pressure system
- B) A boundary between two air masses**
- C) A type of cloud formation
- D) The center of a cyclone

11. Which of these atmospheric gases is most responsible for the greenhouse effect?

- A) Nitrogen
- B) Oxygen
- C) Water vapor**
- D) Helium

12. What is the standard unit of measurement for atmospheric pressure in meteorology?

- A) Pascal
- B) Hectopascal**
- C) Newton
- D) Joule

13. Which phenomenon refers to the abnormal warming of surface ocean waters in the eastern tropical Pacific?

- A) La Niña
- B) El Niño**
- C) Jet Stream
- D) Monsoon

14. What is the primary cause of seasonal changes on Earth?

A) Distance from the sun

B) Earth's axial tilt

C) Solar flares

D) Volcanic activity

15. Cirrus clouds are composed primarily of which substance?

A) Liquid water droplets

B) Dust particles

C) Ice crystals

D) Sulfur dioxide

16. What is the term for the amount of water vapor present in the air?

A) Precipitation

B) Humidity

C) Evaporation

D) Condensation

17. Which of the following is a high-altitude, fast-moving wind current?

A) Trade winds

B) Jet stream

C) Sea breeze

D) Katabatic wind

18. The ozone layer, which absorbs ultraviolet radiation, is located primarily in which atmospheric layer?

A) Troposphere

B) Stratosphere

C) Mesosphere

D) Exosphere

19. What is the process called when water changes from a gas to a liquid?

A) Evaporation

B) Sublimation

C) Condensation

D) Deposition

20. Which weather phenomenon is characterized by a rotating column of air in contact with the ground?

A) Anticyclone

B) Tornado

C) Front

D) Cyclone