

Section Quiz

24-1

Section: Air Masses

MATCHING

In the space provided, write the letter of the description that best matches the term or phrase.

- | | |
|-------------------------------|---|
| _____ 1. continental polar | a. an air mass that originates in southern Atlantic and Pacific areas and brings warm, moist air |
| _____ 2. maritime tropical | b. an air mass that originates in North Atlantic and North Pacific areas and brings cold, moist air |
| _____ 3. maritime polar | c. an air mass that originates in Canada and brings cold, dry air |
| _____ 4. continental tropical | d. an air mass that originates in U.S. southwest and brings warm, dry air |

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 5. As lower layers of air are warmed,
- | | |
|-------------------|-------------------|
| a. the air rises. | c. the air dries. |
| b. winds form. | d. the air sinks. |
- _____ 6. What air masses generally move eastward, toward Europe?
- | | |
|-------------------------------|----------------------------|
| a. maritime tropical Pacific | c. maritime polar Pacific |
| b. maritime tropical Atlantic | d. maritime polar Atlantic |
- _____ 7. A large body of air throughout which temperature and moisture content are similar is a(n)
- | | |
|--------------|------------------|
| a. storm. | c. wind belt. |
| b. air mass. | d. air pressure. |
- _____ 8. An air mass usually brings the weather of
- | | |
|-----------------------|----------------------------|
| a. its destination. | c. its path of movement. |
| b. its source region. | d. an undetermined source. |
- _____ 9. Continental polar, maritime polar, continental tropical, and maritime tropical are types of
- | | |
|-----------------|----------------|
| a. air fronts. | c. air masses. |
| b. air systems. | d. air flow. |
- _____ 10. Air masses responsible for cool, dry air in northern summers are
- | | |
|-----------------------|--------------------------|
| a. continental polar. | c. maritime polar. |
| b. maritime tropical. | d. continental tropical. |

Assessment

Section Quiz

24-2

Section: Fronts

MATCHING

In the space provided, write the letter of the description that best matches the term or phrase.

- | | |
|------------------------------|---|
| _____ 1. cold front | a. an area of low pressure, rotating wind that moves toward the rising air of the central low-pressure system |
| _____ 2. tornado | b. a destructive, rotating, funnel-shaped column of air with high wind speeds |
| _____ 3. hurricane | c. the front edge of a moving mass of cold air that pushes beneath a warmer air mass like a wedge |
| _____ 4. warm front | d. a brief, heavy storm with rain, wind, lightning, and thunder |
| _____ 5. midlatitude cyclone | e. a severe storm that develops over tropical oceans, whose strong winds spiral in toward the low-pressure storm center |
| _____ 6. thunderstorm | f. the front edge of advancing warm air mass that replaces colder air with warmer air |

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 7. Which of the following is NOT a thunderstorm stage?
- | | |
|------------|----------------|
| a. mature | c. dissipating |
| b. cumulus | d. fading |
- _____ 8. What type of path does a tornado take if it touches down?
- | | |
|-------------------|----------------|
| a. haphazard | c. straight |
| b. extremely wide | d. predictable |
- _____ 9. A weather event in which the air sinks and flows outward from a center of high pressure, and that brings dry weather is a(n)
- | | |
|----------------|-----------------|
| a. heat storm. | c. anticyclone. |
| b. front. | d. cyclone. |
- _____ 10. A hurricane begins when warm, moist air rises rapidly and the moisture condenses, releasing energy in the form of
- | | |
|-------------------|------------------|
| a. tropical heat. | c. rising heat. |
| b. latent heat. | d. ionized heat. |

Assessment

Section Quiz

24-3

Section: Weather Instruments**MATCHING**

In the space provided, write the letter of the definition that best matches the term or phrase.

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|----------------------|--|
| _____ 1. anemometer | a. an instrument that measures and indicates temperature |
| _____ 2. barometer | b. an instrument used to determine the direction of the wind |
| _____ 3. wind vane | c. an instrument used to measure wind speed |
| _____ 4. thermometer | d. an instrument that measures atmospheric pressure |

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 5. Radiosonde instruments measure all of the following EXCEPT
- | | |
|-------------------|--------------------|
| a. dew point. | c. temperature. |
| b. wind velocity. | d. storm patterns. |
- _____ 6. What tool do meteorologists use to solve mathematical equations and store data?
- | | |
|-------------------|---------------|
| a. computer | c. satellite |
| b. weather center | d. thermistor |
- _____ 7. Which of the following measurements indicates a southerly wind?
- | | |
|---------|---------|
| a. 90° | c. 270° |
| b. 180° | d. 0° |
- _____ 8. What does radar use to determine the velocity and location of objects?
- | | |
|-------------------|----------------|
| a. radiosonde | c. radio waves |
| b. infrared light | d. sonar |
- _____ 9. Scientists study upper atmospheric conditions to
- | | |
|-----------------------------------|--------------------------------|
| a. make local forecasts. | c. study the outer atmosphere. |
| b. track global weather patterns. | d. make short-range forecasts. |
- _____ 10. Marine weather conditions can be monitored by
- | |
|----------------------------------|
| a. anometers. |
| b. barometers. |
| c. ocean-based weather stations. |
| d. weather satellites. |

Section Quiz

24-4

Section: Forecasting the Weather

MATCHING

In the space provided, write the letter of the definition that best matches the term or phrase.

- | | |
|-----------------------------------|---|
| _____ 1. World Weather Watch | a. the temperature to which the air must cool in order for more water to condense than to evaporate |
| _____ 2. dew point | b. an organization that promotes rapid exchange of weather information |
| _____ 3. isobars | c. the U.S. weather forecasting agency |
| _____ 4. station model | d. lines that connect points of equal atmospheric pressure |
| _____ 5. National Weather Service | e. a pattern of meteorological symbols that represents the weather at a particular station |

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 6. Doppler radar and satellite images provide information to create
- | | |
|--------------------|--------------------|
| a. station models. | c. weather models. |
| b. weather data. | d. regional data. |
- _____ 7. Weather stations report data to
- | | |
|------------------------|-----------------------------|
| a. the WMO. | c. the United Nations. |
| b. collection centers. | d. the World Weather Watch. |
- _____ 8. Which of the following types of weather have meteorologists tried to control with freezing nuclei?
- | | |
|--------------|---------------|
| a. tornadoes | c. hurricanes |
| b. lightning | d. thunder |
- _____ 9. Symbols and colors communicate weather data on a
- | | |
|---------------------|---------------------|
| a. weather station. | c. satellite image. |
| b. station model. | d. weather site. |
- _____ 10. Weather map symbols *H* and *L* indicate
- | | |
|--------------------------|-----------------------|
| a. precipitation. | c. temperature range. |
| b. air pressure centers. | d. wind velocity. |