

Sample Q4

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- _____ 1. The Fujita scale pertains to
- the size of a tornado producing thunderstorm.
 - the amount of hail that falls from a mature thunderstorm.
 - the size of the thunderstorm image on a radar screen.
 - the strength of a tornado.
- _____ 2. At the periphery of a hurricane the air is _____, and several kilometers above the surface, in the eye, the air is _____.
- sinking, sinking
 - sinking, rising
 - rising, sinking
 - rising, rising
- _____ 3. Which below forms *only* over water?
- thunderstorms
 - tornadoes
 - mesocyclones
 - hurricanes
- _____ 4. In 1978, the United States banned the non-essential use of chlorofluorocarbons (CFCs). This was because
- CFCs are a primary component of photochemical smog.
 - CFCs are toxic gases.
 - CFCs reduce the ozone concentration in the stratosphere.
 - CFCs react with water vapor to form acid rain.
- _____ 5. Polar stratospheric clouds form above Antarctica when _____ in the stratosphere is _____.
- temperature, high
 - temperature, low
 - pressure, high
 - pressure, low
- _____ 6. Which of the following conditions would act to prevent a high concentration buildup of pollutants near the surface?
- light surface winds
 - a strong subsidence inversion
 - a large, slow-moving anticyclone
 - a deep mixing layer
- _____ 7. On clear, cold winter nights, cities tend to cool _____ than rural areas and have _____ minimum temperatures.
- more slowly, higher
 - more quickly, higher
 - more slowly, lower
 - more quickly, lower

- _____ 8. The problem of acid rain is probably most severe in which of the following regions?
- Gulf Coast
 - New England
 - Desert Southwest
 - Pacific Northwest
 - Central Plains
- _____ 9. Which of the following is a major way in which chlorofluorocarbons can enter the stratosphere?
- from the exhaust of high-altitude aircraft
 - in an inversion
 - in building thunderstorms that penetrate into the lower stratosphere
 - from the rupture of radiosonde balloons
- _____ 10. Evidence suggests that throughout much of the earth's history, the global climate was
- warmer than it is today.
 - colder than it is today.
 - about the same temperature as it is today.
 - more variable than it is today.
- _____ 11. Plate tectonics "explains" certain climatic changes by showing that these changes may be related to
- mountain building.
 - the amount of CO₂ and H₂O released into the atmosphere.
 - the paths taken by ocean currents.
 - the position of the continents.
 - all of the above
- _____ 12. Volcanic eruptions that have the greatest impact on global climate appear to be those rich in
- nitrogen.
 - water vapor.
 - carbon dioxide.
 - sulfur.
- _____ 13. Large volcanic eruptions with an ash veil that enters the stratosphere tend to _____ at the surface.
- increase temperatures
 - increase precipitation
 - decrease temperatures
 - have no effect
- _____ 14. Which of the following would be true if the earth did not have an atmosphere?
- there would be fewer hours of daylight
 - the sky would always be black
 - the stars would be visible in the sky during the day
 - all of the above
- _____ 15. What color would the sky be if air molecules selectively scattered only the longest wavelengths of visible light?
- white
 - blue
 - red
 - black
- _____ 16. Which of the following are capable of producing a red sunrise or sunset?
- small suspended salt particles
 - volcanic ash
 - small suspended dust particles
 - all of the above

- ____ 17. Suppose you took a color photograph of clouds at night, with your camera adjusted so that the shutter stayed open long enough to allow enough the same amount of light that would enter the camera during a daytime photograph. On the resulting photograph, the clouds should look
- dark
 - black and white
 - about the same as clouds look during a daytime photograph
- ____ 18. Which of the following factors is most important in determining the strength of a tornado?
- diameter
 - air temperature
 - duration
 - central pressure
- ____ 19. The most frequent time of day for tornadoes to form is in the
- early morning at the time of sunrise.
 - late morning just before noon.
 - afternoon.
 - middle of the night.
- ____ 20. The rotating updraft inside a severe thunderstorm is called a
- mesohigh.
 - mesocyclone.
 - funnel cloud.
 - roll cloud.
- ____ 21. Most tornadoes move from
- north to south.
 - northwest to southwest.
 - southwest to northeast.
 - southeast to northwest.
- ____ 22. Thunderstorms which produce tornadoes
- have very little cloud-to-ground lightning.
 - have updraft velocities that exceed 100 miles per hour.
 - have rotating updrafts.
 - will not produce hail.

Sample Q4
Answer Section

MULTIPLE CHOICE

1. ANS: D
2. ANS: A
3. ANS: D
4. ANS: C
5. ANS: B
6. ANS: D
7. ANS: A
8. ANS: B
9. ANS: C
10. ANS: A
11. ANS: E
12. ANS: D
13. ANS: C
14. ANS: D
15. ANS: C
16. ANS: D
17. ANS: C
18. ANS: D
19. ANS: C
20. ANS: B
21. ANS: C
22. ANS: C

B 8. C 17.

 D 1. C 9. D 18.

 A 2. A 10. C 19.

 D 3. E 11. B 20.

 C 4. D 12. C 21.

 B 5. C 13. C 22.

 D 6. D 14.

 A 7. C 15.

 D 16.