

Sample Q3

Multiple Choice

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

- _____ 1. Just above cumulus humilis clouds you would expect to find
 - a. a stable layer.
 - b. an unstable layer.
 - c. a conditionally unstable layer.
 - d. unusually strong horizontal winds.
- _____ 2. Which of the following sets of conditions would produce a cumulus cloud with the *lowest* base?
 - a. air temperature 90° F, dew point temperature 50° F
 - b. air temperature 90° F, dew point temperature 40° F
 - c. air temperature 90° F, dew point temperature 60° F
 - d. air temperature 90° F, dew point temperature 20° F
- _____ 3. An example of orographic clouds would be
 - a. clouds forming over a warm ocean current.
 - b. clouds forming on the windward slope of a mountain.
 - c. clouds forming behind a jet airplane.
 - d. clouds formed by surface heating.
- _____ 4. Which cloud type below will only produce precipitation by the collision-coalescence process?
 - a. a thick, cold nimbostratus cloud
 - b. a thick, warm cumulus cloud
 - c. a thick, cold cumulus cloud
 - d. a thick, supercooled cumulonimbus cloud with abundant nuclei
 - e. a supercooled cumulus congestus cloud
- _____ 5. During the ice crystal process of rain formation
 - a. only ice crystals need be present in a cloud.
 - b. ice crystals grow larger at the expense of the surrounding liquid cloud droplets.
 - c. the temperature in the cloud must be -40° C (-40° F) or below.
 - d. the cloud must be a cumuliform cloud.
- _____ 6. Aircraft icing would be heaviest and most severe
 - a. in the cloud at warmer than freezing temperatures.
 - b. in the cloud at just below freezing temperatures.
 - c. in the cloud at well below freezing temperatures.
 - d. outside the cloud at below freezing temperatures.
- _____ 7. A raindrop which freezes before reaching the ground is called
 - a. snow.
 - b. graupel.
 - c. sleet.
 - d. glaze.
- _____ 8. If a city were to receive 1/2 inch of rain in the morning and then 5 inches of snow that afternoon, about how much precipitation would the weather service report for that day?
 - a. 5 1/2 inches
 - b. 1/2 inch
 - c. 1 inch
 - d. 10 inches

- ____ 9. Ice nuclei may be
- ice crystals
 - certain clay minerals
 - bacteria in decaying plant leaf material
 - all of the above
- ____ 10. Contact nucleation is
- the freezing of supercooled droplets by contact with a nucleus
 - the sticking together of ice crystals to make a snowflake
 - the joining of many nuclei to form an ice nucleus
 - the freezing of supercooled droplets when they come into contact with a supercooled surface
- ____ 11. Which of the following would you not expect to observe during the passage of a gust front?
- gusty winds
 - rising surface pressures
 - increase in temperatures
 - wind shift
- ____ 12. The main difference between a downburst and a microburst is
- duration.
 - strength.
 - horizontal size.
 - overall altitude.
- ____ 13. A relatively narrow downburst, less than 4 kilometers wide, is called
- a microburst.
 - a funnel cloud.
 - a rain shaft.
 - a narrow burst.
 - a mesocyclone.
- ____ 14. A discharge of electricity from or within a thunderstorm is called
- static electricity.
 - lightning.
 - a downburst.
 - St. Elmo's fire.
 - an atmospheric arc.
- ____ 15. Lightning discharges within a cloud occur _____ cloud-to-ground lightning.
- more frequently than
 - less frequently than
 - about as frequently as
 - lightning cannot remain in the cloud, it must strike an object on the ground
- ____ 16. The bluish halo that may appear above pointed objects underneath a thunderstorm is called
- heat lightning.
 - fluorescence.
 - St. Elmo's fire.
 - sheet lightning.
- ____ 17. What would be the proper sequence of events in a lightning flash?
- stepped leader, dart leader, return stroke, return stroke
 - return stroke, stepped leader, return stroke, dart leader
 - dart leader, return stroke, stepped leader, return stroke
 - stepped leader, return stroke, dart leader, return stroke

Name: _____

ID: A

- ____ 18. A funnel cloud or tornado may develop from this rotating cloud that extends beneath a severe thunderstorm.
 - a. mammatus cloud
 - b. roll cloud
 - c. wall cloud
 - d. suction vortices
- ____ 19. The small, rapidly rotating whirls that sometimes occur within a large tornado are called
 - a. microtornadoes.
 - b. whirl winds.
 - c. suction vortices.
 - d. mesocyclones.
- ____ 20. Which figure comes closest to the estimated number of thunderstorms that occur each year throughout the world?
 - a. 2,000
 - b. 40,000
 - c. 100,000
 - d. 600,000
 - e. 14,000,000
- ____ 21. Light flashes darting upward from the tops of thunderstorms are called
 - a. bead lightning
 - b. ball lightning
 - c. heat lightning
 - d. sprites and Mountain Dew
 - e. sprites and blue jets

Sample Q3
Answer Section

MULTIPLE CHOICE

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

D 9. C 18.

 A 1. A 10. C 19.

 C 2. C 11. E 20.

 B 3. C 12. E 21.

 B 4. A 13.

 B 5. B 14.

 B 6. A 15.

 C 7. C 16.

 C 8. D 17.