**Unit 6 TEST**

Atmosphere and Weather

\_\_\_\_ 1. Which of the following IS NOT one of the 3 main cloud types?

A. stratus B. cumulonimbus C. cumulus D. cirrus

\_\_\_\_ 2. When the air is very cold, water vapor forms

A. rain B. snow C. sleet D. hail

\_\_\_\_ 3. When ice nuclei go up and down in a cloud, what forms?

A. rain B. snow C. sleet D. hail

\_\_\_\_ 4. Fluffy clouds that indicate fair weather are

A. stratus B. cumulonimbus C. cumulus D. cirrus

\_\_\_\_ 5. Thunderstorm clouds are

A. stratus B. cumulonimbus C. cumulus D. cirrus

\_\_\_\_ 6. Clouds are classified by A. color and height B. shape and height

\_\_\_\_ 7. Clouds that form flat layers or smooth even sheets in the sky are

A. stratus B. cumulonimbus C. cumulus D. cirrus

\_\_\_\_8. Clouds with ice crystals are

A. stratus B. cumulonimbus C. cumulus D. cirrus

\_\_\_\_9. The dark clouds associated with rain are called

A. cumulus B. nimbus C. cirrus

\_\_\_\_ 10. The layer of the atmosphere that contains the ozone layer.

A. troposphere B. mesosphere C. stratosphere

\_\_\_\_ 11. The layer of the atmosphere that contains the weather, clouds, and smog.

A. troposphere B. mesosphere C. stratosphere

\_\_\_\_12. The most common gas in the atmosphere.

A. nitrogen B. oxygen C. water vapor

\_\_\_\_13. The substance found in Earth’s atmosphere that exists as a solid, liquid, and gas.

A. carbon dioxide B. water C. mercury

\_\_\_\_14. What type of air mass brings cold and dry air to an area? \_\_\_\_\_

a) mT b) cT c) cP d) mP e) A

\_\_\_\_15. What type of air mass consists of humid and warm air? \_\_\_\_\_

a) mT b) cT c) cP d) mP e) A

\_\_\_\_16. Which type of air mass brings us cold weather from Canada & Alaska?

a) mT b) cT c) cP d) mP e) A

\_\_\_\_17. Maritime tropical (mT) air masses bring North Carolina warm air and

precipitation. Which of the following places could this weather be

coming from? \_\_\_\_

a) Alaska b) Pacific Ocean c) Gulf of Mexico d) Indian Ocean

\_\_\_\_18. Which of the following will result at high altitudes overtop of a contrast

between very warm and very cool air? \_\_\_\_\_\_

a) trade winds b) prevailing westerlies

c) polar easterlies d) jet streams

\_\_\_\_19. Fronts are narrow region separating two air masses of different

densities. The density differences are caused by difference in

temperature, humidity, and \_\_\_\_\_\_\_\_\_\_\_.

a) heat b) pressure c) mass d) altitude

\_\_\_\_20. What type of front usually is responsible for thunderstorms

or showers? \_\_\_\_\_

a) cold b) warm c) occluded d) stationary

\_\_\_\_21. What type of front brings very little change in the weather? \_\_\_\_\_

a) cold b) warm c) occluded d) stationary

\_\_\_\_22. What type of front brings light, steady rain? \_\_\_\_\_

a) cold b) warm c) occluded d) stationary

\_\_\_\_23. What type of instrument is used to measure wind speed? \_\_\_\_\_

a) thermometer b) anemometer c) barometer d) ceilometer

\_\_\_\_24. What type of instrument is used to measure air pressure? \_\_\_\_\_

a) thermometer b) anemometer c) barometer d) ceilometer

\_\_\_\_25. What type of instrument is used to measure how high the clouds are?

a) radiosonde b) anemometer c) barometer d) ceilometer

\_\_\_\_26. A balloon that is sent up on the atmosphere to record data is called a

a) radiosonde b) therometer c) barometer d) ceilometer

\_\_\_\_27. What type of instrument is used to measure air temperature? \_\_\_\_\_

a) radiosonde b) anemometer c) hygrometer d) thermometer

\_\_\_\_28. What type of instrument is used to measure humidity? \_\_\_\_\_

a) radiosonde b) anemometer c) barometer d) hygrometer

\_\_\_\_29. Thunderstorm clouds are

A. cirrus B. cumulonimbus C. cumulus

\_\_\_\_30. The temperature of air over land and water differ causing

A sea-breeze thunderstorms B. mountain thunderstorms

\_\_\_\_31. Which forms over water A. hurricane B. tornado

\_\_\_\_32. Electricity in a cumulonimbus cloud is called

A. thunder B. hail C. lightning

\_\_\_\_33. Which is the correct order of development of a hurricane?

a. Tropical disturbance, tropical depression, tropical storm, hurricane

b. Tropical disturbance, tropical storm, tropical depression, hurricane

c. Tropical depressions, tropical disturbance, tropical storm, hurricane

Use the table to answer questions 34-35:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Category | Path of destruction | Wind speed (mph) | Duration |
| F0, F1 | Weak | Up to 3 miles | 60-115 | 1-10 minutes |
| F2, F3 | Strong | 15+ miles | 110-205 | 20 min. or longer |
| F4, 5 | Violent | 50+ miles | More than 200 | 1 hour or longer |

34. How long would a category F2 tornado probably last?

A. less than 10 min. B. more than 20 min C. more than 1 hour

35. What would be the possible wind speed of an F4 tornado?

A. 60 mph B. 100 mph C. 180 mph D. 215 mph

36. Hurricanes more commonly form over

A. tropical oceans B. polar oceans C. temperate oceans

37. An long period of below normal temperatures is called a

A. Flood B. drought C. cold wave D. heat wave

38. The minimum speed for a category 1 hurricane is

A. 34mph B. 60mph C. 74 mph

39. The mound of water pushed by hurricane winds towards land is called the

A. eyewall B. storm surge C. waterwall

40. About how long does the thunderstorm process take?

A. 20 min B. 1 hour C. 2-3 hours D. 1 day

41. What is the type of cloud called that tornados form from?

A. cirrus B. stratus C. supercell D. cumulus

42. Will the wind-chill factor make the air feel \_\_\_\_\_\_\_\_ than what it actually is?

A. warmer B. colder

43. During which stage of thunderstorm development does cool air start to enter

the cloud, causing a downdraft to occur?

A. Cumulus B. Mature C. Dissipation

44. What type of thunderstorm is most common in the afternoon from the

heating of the day?

A. Frontal B. Air Mass