Unit 2 Test - Matter

ID: A

***Do Not Write on Exam**

Multiple Choice

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

D 1. Matter in which atoms are tightly held in place is a ____.
a. gas b. liquid c. plasma d. solid

D 2. Atoms of which type of matter move very little because they are tightly connected?
a. plasma b. liquid c. gas d. solid

A 3. According to Charles's law, the volume of a gas _____ with decreasing temperature, as long as pressure does not change.
a. decreases b. increases c. stays the same

C 4. Increasing ____ raises the boiling point of a liquid.
a. temperature b. the amount of liquid c. pressure d. volume

D 5. The particles that make up a solid move ____ than do the particles that make up a gas.
a. in the same way c. more quickly
b. more quickly and farther d. more slowly

B 6. According to Boyle's law, if you decrease the volume of a container of gas and hold the temperature constant, the pressure of the gas will .
a. decrease b. increase c. stay the same

B 7. Anything that has mass and takes up space
a. Energy b. Matter c. Volume d. Pressure

C 8. The amount of energy needed to change a material from a liquid to a gas.
a. Pressure c. Heat of Vaporization
b. Heat of Fusion d. Thermal Expansion

B 9. The amount of energy needed to change a material from a solid to a liquid.
a. Pressure c. Heat of Vaporization
b. Heat of Fusion d. Thermal Expansion

A 10. Matter with no definite volume and no definite shape is a ____.
a. gas b. liquid c. plasma d. solid

A 11. According to Archimedes' principle, the buoyant force on an object in a fluid is _____ ____ the weight of the fluid displaced by the object.
a. equal to b. less than c. greater than

B 12. Matter that has a definite volume but no definite shape is a ____.
a. gas b. liquid c. plasma d. solid

B 13. As the volume of a gas decreases, the pressure of the gas will ____ if the temperature remains the same.
a. decrease b. increase c. remain the same d. contract

B 14. As the temperature of a gas increases, the volume of the gas will ____ if the pressure remains the same.
a. decrease b. increase c. remain the same d. contract

D 15. Adding heat to matter causes the atoms to move _____ . This may causes the connections to become looser and the matter to change its state.
a. atoms of matter do not move c. no affect at all
b. slower d. faster

B 16. How would you calculate the density of an object?
a. Divide its weight by its volume. c. Multiply its volume times its mass.
b. Divide its mass by its volume. d. Multiply its weight times its mass.

D 17. The particles that make up a solid move ____ than do the particles that make up a gas.
a. in the same way c. more quickly and farther
b. more quickly d. mores slowly

B 18. As a sample of matter is heated, its particles ____.
a. are unaffected c. move more slowly
b. move more quickly d. stop moving

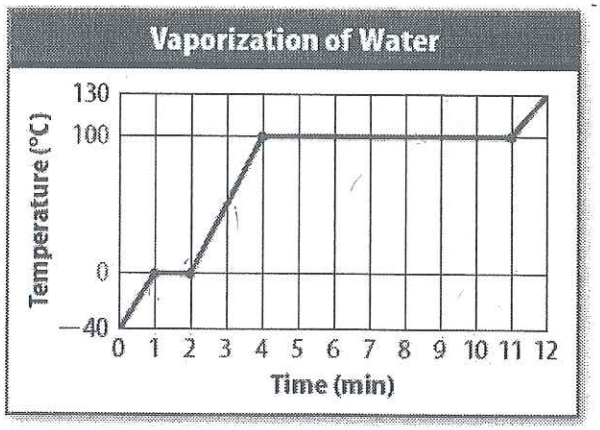
C 19. A gas-like mixture with no definite volume or shape that is made up of positively and negatively charged particles is a ____.
a. gas b. liquid c. plasma d. solid

A 20. According to Bernoulli's principle, as the velocity of a fluid increases, the pressure exerted by the fluid _____.
a. decreases b. increases c. stays the same

A 21. A fluid's resistance to flow is called ____.
a. viscosity b. fluid pressure c. buoyancy d. stickiness

A 22. Matter in which the particles are free to move in all directions until they have spread evenly throughout their container is a ____.
a. gas b. liquid c. plasma d. solid

Name: _____ ID: A



A 23. What state of matter is the water in from 0 to 1 minute?
a. Solid
b. Liquid
c. Gas
d. Plasma

D 24. Heat of vaporization is occuring between _____ minutes.
a. 0 - 1 b. 1 - 2 c. 3 - 4 d. 4 - 11 e. 11 - 12

B 25. How long is the water in the liquid state?
a. 1 minute b. 2 minutes c. 7 minutes d. 10 minutes

B 26. What is happening from 1 to 2 minutes?
a. Solid water is increasing temperature.
b. Water is melting
c. Liquid water is increasing temperature.
d. Water is boiling

C 27. As the temperature of a gas increases, the volume of the gas will ____ if the pressure remains the same.
a. decrease b. remain the same c. increase d. contract

C 28. Most matter ____ when heated.
a. condenses b. contracts c. expands d. solidifies

D 29. Matter that has a definite volume and a definite shape is a ____.
a. gas b. liquid c. plasma d. solid

A 30. The density of a block of wood with a volume of 50 cubic centimeters and a mass of 100 grams is
a. 2 g/cm^3 b. 0.5 g/cm^3 c. 500 g/cm^3 d. 5,000 g/cm^3

B 31. Explains why tires inflated on a warm day look flatter on a cold day.
a. Boyle's Law b. Charles's Law c. Gay Lussac's Law

B 32. How hot air balloons work because the gas inside the balloon is heated to high temperatures which causes the volume of the gas to expand. This in turn helps the balloon "lift off" Which priniciple easily explains hot air balloons work?
a. Boyle's Law b. Charles's Law c. Gay Lussac's Law

C 33. When you put an aerosol can next to a fire, it explodes? Which law explains why this occurs?
a. Boyle's Law b. Charles's Law c. Gay Lussac's Law

C 34. When you put an aerosol can next to a fire, it explodes? Which law explains why this occurs?
a. Boyle's Law b. Charles's Law c. Gay Lussac's Law

A 35. A weather balloon is filled on the ground at a high atmospheric pressure. As it climbs the surrounding atmospheric pressure significantly decreases which causes the volume of the balloon to expand. Which law easily explains how weather balloons work?

a. Boyle's Law b. Charles's Law c. Gay Lussac's Law

A 36. The reason why ships float can be attributed to this principal.
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

A 37. States that the buoyant force on an object is equal to the weight of the fluid displaced by the object

a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

A 38. The reason you weigh less in a swimming pool is explained by this principle.
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

B 39. States that pressure applied to a fluid is transmitted unchanged throughout the fluid
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

C 40. States that as the speed of a fluid increases the pressure exerted by the fluid decreases
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

C 41. The reason why planes fly can be attributed to this principal
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

B 42. Hydraulic lifts work based on this principle
a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

B 43. The fact that toothpaste comes out of the tube when squeezed at the opposite end is an everyday example of this principle

a. Archimedes Principle b. Pascal's Principle c. Bernoulli's Principal

A 44. Amount of force exerted per unit of area
a. pressure b. velocity c. volume

D 45. Increase in size of a substance which results from the separation of its molecules when the temperature is increased. It's the reason for cracks in concrete, why thermometers work, and how hot air balloons rise.
a. Pressure c. Heat of Vaporization
b. Heat of Fusion d. Thermal Expansion