## Unit 7 Matter Chapters 2 & 3

Do Not Write on This Test. Put all answers on the sheet provided.

## Matching

Temperature



Time

Match the descriptions below with the diagram above

- 1. freezing point
- 2. condensation point
- 3. the state with the highest molecular movement
- 4. solid state
- 5. boiling point
- 6. Liquid state
- 7. the state with the lowest molecular movement
- 8. melting point
- 9. gas state

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

- 10. Matter that has a definite volume and a definite shape is a b. solid c. liquid a. gas d. plasma
- 11. If you move a substance from one container to another and its volume changes, the substance is a a. solution. b. gas. c. liquid. d. solid.
- 12. The particles that make up a solid move \_\_\_\_\_ than do the particles that make up a gas.
- a. more quickly and farther c. more quickly
  - b. more slowly

d. in the same way



13. Which substance in figure 3-1 is a liquid? a. Substance A b. Substance B

Substance A

- c. Substance C
- d. all of the above

- 14. In which of the substances in Figure 3-1 are the forces of attraction among the particles so weak that they can be ignored under ordinary conditions?
  - a. Substance A b. Substance B
- c. Substance C
- d. all of the above

d. all of the above

15. Which substance in figure 3-1 is a solid?a. Substance Ab. Substance Bc. Substance C

Melting and Boiling Points of Some Substances					
Substance	Melting Point	<b>Boiling Point</b>			
Hydrogen	–259.3°C	–252.9°C			
Nitrogen	–210.0°C	–195.8°C			
Acetic Acid	16.6°C	117.9°C			
Gold	1064.2°C	2856°C			

## Figure 2-1

16.	<ul> <li>Based on the information in Figure 2-1, which substa</li> <li>a. Acetic Acid</li> <li>b. Nitrogen</li> <li>c. Q</li> </ul>	nces would be a gas at 0°C? Gold d. all of the above				
17.	<ul> <li>Based on the information in Figure 2-1, the melting p a 210.0°C</li> <li>b. 1064.2°C</li> <li>c. 1</li> </ul>	point of nitrogen is $6.6^{\circ}C$ d. 117.9°C				
18.	<ul> <li>Based on the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in Figure 2-1, the freezing particular in the information in the information in Figure 2-1, the freezing particular in the information in the i</li></ul>	point of acetic acid is 17.9°C d 195.8°C				
19.	<ul> <li>Which of the following will cause a decrease in gas p</li> <li>a. lowering the temperature</li> <li>b. reducing the volume</li> <li>c. in</li> <li>d. b</li> </ul>	pressure in a closed container? ncreasing the temperature both a and b				
20.	). Which of the following is an example of a chemical of	Which of the following is an example of a chemical change?				
	a. a puddle of water evaporatingc. pb. wood burningd. id	oounding gold into a coin ce melting				
21.	<ol> <li>According to, if you decrease the volume of a c of the gas will increase.</li> </ol>	ontainer of gas and hold the temperature constant, the pressure				
	a. Lussac's law b. Boyle's law c. H	Bernoulli's principle d. Charles's law				
22.	2. Matter that has a definite volume but no definite shap	be is a				
	a. gas. b. plasma. c. s	olid. d. liquid.				
23.	3. During a phase change, the temperature of a substance	e				
	a. does not change. b. decreases. c. in	ncreases. d. increases or decreases.				
24.	4. Which state of matter will hold its shape without a co	iontainer?				
25	a. plasma 0. solid c. i.	iquid u. gas				
23.	a. vaporization. b. deposition. c. n	nelting. d. sublimation.				
26.	5. Which of the following is an example of a physical c	hange?				
	a. burning wood into charcoalc. cb. rusting irond. d	ooking an egg lissolving salt in water				
27.	7. As the volume of a gas decreases, the pressure of the	gas will if the temperature remains the same.				
	a. decrease b. remain the same c. in	ncrease d. contract				
28.	<ol> <li>The change of a substance from a solid directly to a gas a. sublimation.</li> <li>b. evaporation.</li> <li>c. c</li> </ol>	gas is called condensation. d. melting.				
29.	P. The smallest unit of a substance that behaves like the	substance is				
	a. a compound. b. an element. c. a	n atom. d. a molecule.				
30.	). Which of the following is a chemical change?					
	a. water breaking down into hydrogen and oxygen c. ice melting					
	b. ice being carved d. water boiling					

31.	Raising the temperature of a gas will increase its pressure if the volume of the gas					
	a. and the number of particles are increased. c. is constant.					
22	b. and you open the container d. is increased, but the number of particles is constant.					
32.	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					
33	Grinding quartz crystals down to produce sand is an example of a					
55.	a change of state b physical change c chemical reaction d chemical change					
34	A substance that cannot be broken down into simpler substances is					
5 1.	a. an atom. b. an element. c. a compound. d. a mixture.					
35.	During a chemical or physical change, energy may be					
	a. converted into another form. c. destroyed.					
	b. created. d. greatly increased in strength.					
36.	Matter that has a definite volume but no definite shape is a					
	a. solid b. liquid c. plasma d. gas					
37.	Digesting food is an example of					
• •	a. chemical change. b. physical change. c. change of state. d. buoyancy.					
38.	According to, as the temperature of a gas decreases, the pressure exerted by the gas will decrease if the volume					
	stays constant.					
20	As a sample of matter is heated, its martiales					
39.	a move more quickly b are unaffected c stop moving d move more slowly					
40	As the temperature of a gas increases, the volume of the gas will if the pressure remains the same					
101	a. contract b. decrease c. remain the same d. increase					
41.	Which of the following is NOT a clue that a chemical change has occurred?					
	a. change in color c. change in shape					
	b. formation of a precipitate d. production of a gas					
42.	Matter is defined as anything that					
	a. can be weighed. c. can be seen and touched.					
12	b. has mass and takes up space. d. contains kinetic of potential energy.					
43.	a condensation b vanorization c freezing d sublimation					
<u>1</u> 1	A substance has a mass of 360 g and a volume of 7.5 cm <sup>3</sup> What is its density?					
чч.	a. $270 \text{ g/cm}^3$ b. $480 \text{ g/cm}^3$ c. $2700 \text{ g/cm}^3$ d. $48 \text{ g/cm}^3$					
45.	All changes of the state of matter require					
	a. sublimation. b. vibration. c. energy. d. water.					
46.	What type of change occurs when water changes from a solid to a liquid?					
	a. a physical change c. an irreversible change					
	b. a phase change d. both a and b					

1.	ANS:	В	REF: SPS 5
2.	ANS:	D	REF: SPS 5
3.	ANS:	E	REF: SPS 5
4.	ANS:	А	REF: SPS 5
5.	ANS:	D	REF: SPS 5
6.	ANS:	С	REF: SPS 5
7.	ANS:	А	REF: SPS 5
8.	ANS:	В	REF: SPS 5
9.	ANS:	Е	REF: SPS 5
	MUL	<b>FIPLE CHOIC</b>	CE
10.	ANS:	В	SPS 5
11.	ANS:	В	SPS 2
12.	ANS:	В	SPS 5a
13.	ANS:	В	SPS 5a
14.	ANS:	С	SPS 5a
15.	ANS:	А	SPS 5a
16.	ANS:	В	SPS 5
17.	ANS:	А	SPS 5
18.	ANS:	А	SPS 5
19.	ANS:	A	SPS 5b
20.	ANS:	В	SPS 2
21.	ANS:	В	SPS 5b
22.	ANS:	D	SPS 5
23.	ANS:	A	SPS 5a
24.	ANS:	В	SPS 5
25.	ANS:	D	SPS 5
26.	ANS:	D	SPS 2
27.	ANS:	С	SPS 5b
28.	ANS:	А	SPS 5
29.	ANS:	D	SPS 2
30.	ANS:	А	SPS 2
31.	ANS:	С	SPS 5b
32.	ANS:	С	SPS 5
33.	ANS:	В	SPS 2
34.	ANS:	В	SPS 2
35.	ANS:	А	SPS 5
36.	ANS:	В	SPS 5
37.	ANS:	А	SPS 5
38.	ANS:	D	SPS 5b
39.	ANS:	А	SPS 5a
40.	ANS:	D	SPS 5b
41.	ANS:	С	SPS 2
42.	ANS:	В	SPS 2
43.	ANS:	В	SPS 5
44.	ANS:	D	SPS 2a
45.	ANS:	С	SPS 5
46.	ANS:	D	SPS 5