This is a Class 1 exam

Lebanon Evangelical School for Boys and Girls

Lebanon Evangelical School

for Boys and Girls Loueizeh - Baabda

Stage Exam 02

19DEC2022

Do NOT write in this box. Your MARK will be placed here.

Subject :	Chemistry
Class :	8A and 8B
Teacher :	Mrs Dina Geha
Duration :	1 hour

Please write your answers on a separate sheet of paper, NOT on the question sheet.

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

I- Identify the letter of the choice that best completes or answers the statement. (1pt. each)

1. Gases can be _____.

A. expanded and compressed
B. boiled
C. expanded but not compressed
D. destroyed

2. Particles with more energy move _____ than particles with less energy.

A. slower and closer together
B. faster and farther apart
C. faster and closer together.
D. slower and farther apart

3. Which best describes particles in a liquid?

A. completely unmoving
B. more freely moving than a solid
C. less freely moving than a solid
D. more freely moving than a gas

4. Honey has _____ viscosity.

A. low
B. no
C. high
D. runny

5. _____ is the average kinetic energy of the individual particles of a substance.

A. Matter
B. Heat
C. Energy
D. Temperature

6. If a container of gas gets larger while the temperature remains the same, the pressure _____.

A. remains the same
B. fluctuates
C. increases
D. decreases

7. What type of solids do not have a specific melting point?

A. amorphous
B. viscous
C. runny
D. crystalline

8. The melting point of a substance is _____ its freezing point.

A. less than
B. the same as
C. independent of
D. greater than

9. The force exerted on an area is known as _____.

A. temperature
B. volume
C. specific heat
D. pressure

10. Surface tension is the result of inward pulling among molecules of a liquid that bring the molecules on the surface closer together

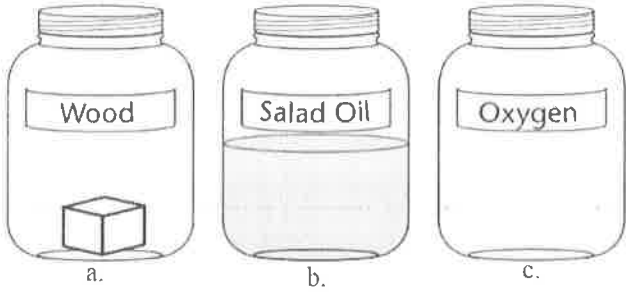
A. True
B. False

II- Include the terms below to answer each question

- Boyle's law
- Charles's law
- kinetic molecular theory
- pressure

1. Temperature, pressure, and volume affect the behavior of gases. Which variable is held constant in the relationship described by Boyle's law? (1pt)
2. Boyle's law describes a relationship relating between two of these variables. What are these two variables? (2pts)
3. Temperature, pressure, and volume affect the behavior of gases. Which variable is held constant in Charles's law? (1pt)
4. Charles's law describes a relationship between two of these variables. What are these two variables? (2pts)
5. Pressure is defined as "the amount of force applied per unit of area." For a sample of gas in a container, how would pressure be affected by an increase in the volume of the container? (1pt)
6. What are four main ideas that are represented in the kinetic molecular theory? (2pts)

III- Use the diagram to answer Questions 1 through 3.



1. Identify the physical state of the substances pictured. (1pt)
2. What would happen to the shape of each substance if the jars were broken? Use the differences in the physical state of the substances to explain your answer. (2pts)
3. Would the volume of each substance change if each were moved into a larger container? Explain. (2pts)

IV- Match each of these statements with the law(s) it describes. (1pt. each)

A. Boyle's law

B. Charles's law

C. Both Boyle's and Charles's law

1. The pressure must be constant for this law to apply.
2. The particles in a gas collide with other particles and the walls of their container.
3. As the pressure increases, the volume decreases.
4. The graph illustrating this relationship is a straight line.
5. The volume of a gas decreases when the particles get closer together.
6. The temperature must be constant for this law to apply.
7. As the temperature increases, the volume also increases.
8. The graph illustrating this relationship is a curved line.
9. The bubbles exhaled by a scuba diver increase in size as the diver approaches the surface.
10. When particles collide, no energy is lost.
11. A balloon blown up inside the house and then taken outside on a winter day, shrinks slightly

V- Complete the table (a to j) by writing whether there is a gain or loss of thermal energy for each change of state and whether the movement of particles increases or decreases. (0.5 pts each)

Change of States	Thermal Energy	Movement of Particles
1. Melting	a.	b.
2. Freezing	c.	d.
3. Vaporization	e.	f.
4. Condensation	g.	h.
5. Boiling	i.	j.

VI- Problems

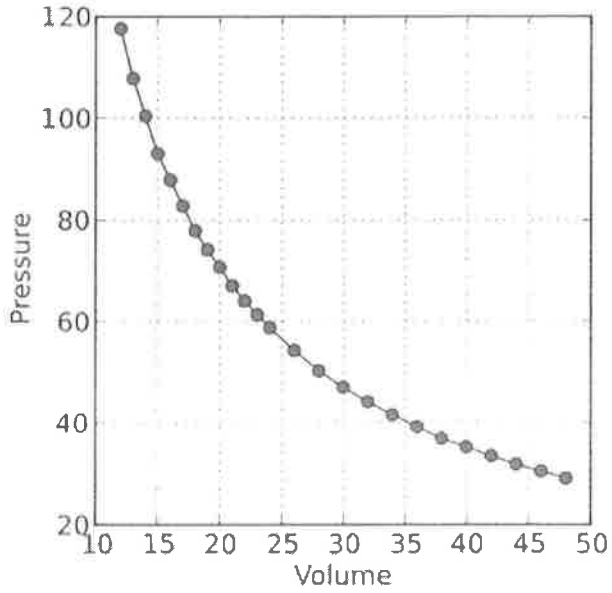
A gas barbecue grill uses propane gas. The propane is stored in a rigid tank.

1- What happens to the pressure of the propane when the tank is left outside on a very hot summer day? (1pt)

2- What about on a cold winter day? (1pt)

3- Suppose a gas is kept in a closed, rigid container. If the temperature of the gas is increased, what happens to its pressure on the container? (1pt)

VII- Consider the graph that shows the variation of the pressure of a gas with respect to its volume.



1- Analyze the graph by describing the relationship between the pressure and the volume of a gas. (2pts)

2- Name the corresponding law. (1pt)

This is a Class 1 exam

Lebanon Evangelical School
for Boys and Girls
Loueizeh - Baabda

Stage Exam 02

19DEC2022

Do NOT write in this box. Your MARK will be placed here.

Subject :	Chemistry
Class :	8C and 8E
Teacher :	Mrs. Mirella Chamoun
Duration :	1 hour

Please write your answer on a separate sheet of paper not on the question sheet.

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

I- Identify the letter of the choice that best completes or answers the statement. (1pt. each)

1. Gases can be _____.

A. expanded and compressed
B. boiled
C. expanded but not compressed
D. destroyed

2. Particles with more energy move _____ than particles with less energy.

A. slower and closer together
B. faster and farther apart
C. faster and closer together.
D. slower and farther apart

3. Which best describes particles in a liquid?

A. completely unmoving
B. more freely moving than a solid
C. less freely moving than a solid
D. more freely moving than a gas

4. Honey has _____ viscosity.

A. low
B. no
C. high
D. runny

5. _____ is the average kinetic energy of the individual particles of a substance.

A. Matter
B. Heat
C. Energy
D. Temperature

6. If a container of gas gets larger while the temperature remains the same, the pressure _____.

A. remains the same
B. fluctuates
C. increases
D. decreases

7. What type of solids do not have a specific melting point?

A. amorphous
B. viscous
C. runny
D. crystalline

8. The melting point of a substance is _____ its freezing point.

A. less than
B. the same as
C. independent of
D. greater than

9. The force exerted on an area is known as _____.

A. temperature
B. volume
C. specific heat
D. pressure

10. Surface tension is the result of inward pulling among molecules of a liquid that bring the molecules on the surface closer together

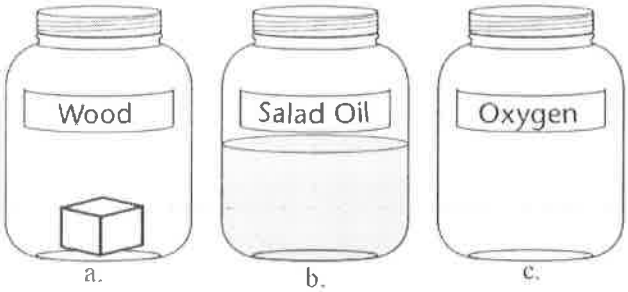
A. True
B. False

II- Include the terms below to answer each question

- Boyle's law
- Charles's law
- kinetic molecular theory
- pressure

1. Temperature, pressure, and volume affect the behavior of gases. Which variable is held constant in the relationship described by Boyle's law? (1pt)
2. Boyle's law describes a relationship relating between two of these variables. What are these two variables? (2pts)
3. Temperature, pressure, and volume affect the behavior of gases. Which variable is held constant in Charles's law? (1pt)
4. Charles's law describes a relationship between two of these variables. What are these two variables? (2pts)
5. Pressure is defined as "the amount of force applied per unit of area." For a sample of gas in a container, how would pressure be affected by an increase in the volume of the container? (1pt)
6. What are four main ideas that are represented in the kinetic molecular theory? (2pts)

III- Use the diagram to answer Questions 1 through 3.



1. Identify the physical state of the substances pictured. (1pt)
2. What would happen to the shape of each substance if the jars were broken? Use the differences in the physical state of the substances to explain your answer. (2pts)
3. Would the volume of each substance change if each were moved into a larger container? Explain. (2pts)

IV- Match each of these statements with the law(s) it describes. (1pt. each)

A. Boyle's law

B. Charles's law

C. Both Boyle's and Charles's law

1. The pressure must be constant for this law to apply.
2. The particles in a gas collide with other particles and the walls of their container.
3. As the pressure increases, the volume decreases.
4. The graph illustrating this relationship is a straight line.
5. The volume of a gas decreases when the particles get closer together.
6. The temperature must be constant for this law to apply.
7. As the temperature increases, the volume also increases.
8. The graph illustrating this relationship is a curved line.
9. The bubbles exhaled by a scuba diver increase in size as the diver approaches the surface.
10. When particles collide, no energy is lost.
11. A balloon blown up inside the house and then taken outside on a winter day, shrinks slightly

V- Complete the table (a to j) by writing whether there is a ***gain*** *or* ***loss*** *of thermal energy for each change of state and whether the movement of particles* ***increases*** *or* ***decreases****. (0.5 pts each)*

Change of States	Thermal Energy	Movement of Particles
1. Melting	a.	b.
2. Freezing	c.	d.
3. Vaporization	e.	f.
4. Condensation	g.	h.
5. Boiling	i.	j.

VI- Problems

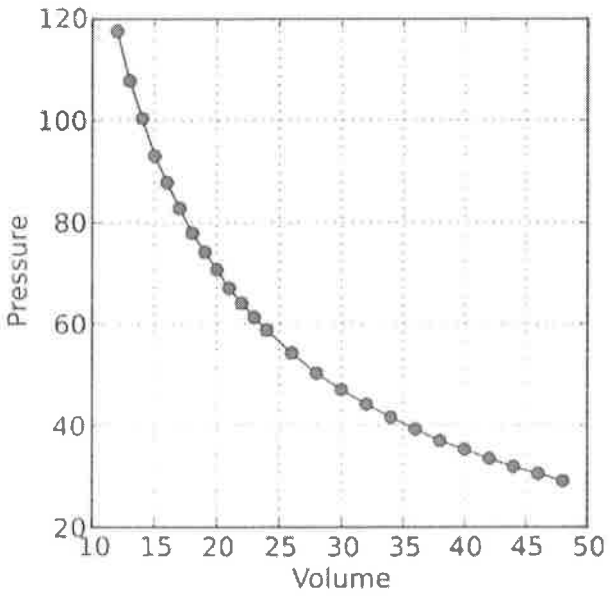
A gas barbecue grill uses propane gas. The propane is stored in a rigid tank.

1- What happens to the pressure of the propane when the tank is left outside on a very hot summer day? (1pt)

2- What about on a cold winter day? (1pt)

3- Suppose a gas is kept in a closed, rigid container. If the temperature of the gas is increased, what happens to its pressure on the container? (1pt)

VII- Consider the graph that shows the variation of the pressure of a gas with respect to its volume.



1- Analyze the graph by describing the relationship between the pressure and the volume of a gas. (2pts)

2- Name the corresponding law. (1pt)

SE02/2022 2023/ Chemistry/ 8

I- Multiple choice (1pt each)

1- A
2- B
3- B
4- C
5- D
6- D
7- A
8- B
9- D
10- A

II- Questions

1- In Boyle's law, temperature is held constant. (1pt)

2- In Boyle's law, the two variables are Volume (1) and pressure (1)

3- In Charle's law, pressure is held constant. (1)

4- In Charle's law, the two varrables are temperature (1) and Volume (1).

5- According to Boyle's law, when pressure decreases Volume increases while the temperature is held Constant. (1)

6- Small particles make up all matter. (2pts)
- Those particles are in constant random motion.
- particles collide with other particles, the walls of their container and other objects.
- When particles collide, No energy is lost.

III - Diagram.

1- a. Solid
b. Liquid (1pt)
c. Gas

2- Wood is a solid, so it has a definite shape and volume; so when its container breaks, it won't change shape.

Salad oil is a liquid so it has a definite volume but no definite shape. So when the container breaks, it will spill / flow on the surface.

Oxygen is a gas; it has no definite shape nor volume; so it will spread out or move freely in all directions

3- for wood, volume will not change because it's a solid (solids have a definite volume)

for Salad oil, the volume will not change, because it's a liquid (liquids have a definite volume)

- for Oxygen, the volume will change because it's a gas with no definite volume

IV - Matching (1pt each)

1 - B
2 - C
3 - A
4 - B
5 - B
6 - A
7 - B
8 - A
9 - A
10 - C
11 - B

V - Complete the table (½ pt each)

a - Gain
b - increase
c - loss
d - decrease
e - gain
f - increase
g - Loss
h - decrease
i - Gain
j - increase

VI - Problems.

1 - The pressure will increase (1pt)
2 - The pressure will decrease (1pt)
3 - Canceled.

VII - Graph

1 - Pressure of a gas increases if the volume decreases, and pressure of a gas decreases if the volume increases, when temperature is constant. (2pt)

2 - Boyle's Law (1pt)