

Name of the student:.....

Grade 7-

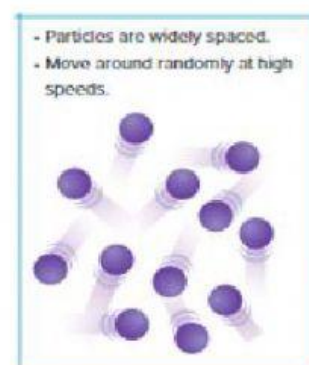
Instructions:

- * This question paper consists of three parts (PART A, PART B AND PARTC).
- * PART A Consist of 6 questions for 30 marks.
- * Part B Consist of 10 questions for 50 marks
- * PART C Consist of 4 questions for 20 marks.
- * Part 1 and Part 2 will be MCQs
- * Part C will be FRQs. (Free Response Questions)
- * Maximum overall Grade will be 110.

PART A (6*5=30 Marks)

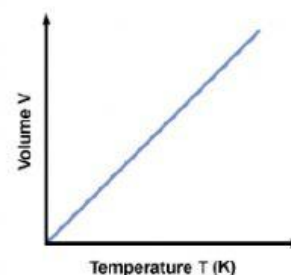
1. Identify the state of matter in the given picture below.

- A. Solid
- B. Liquid
- C. Gas
- D. Cannot be identified.

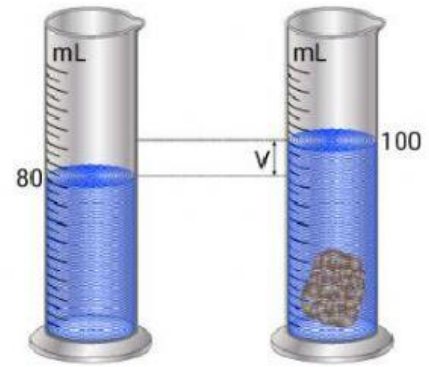


2. From the graph the relationship between the temperature and volume as per Charles law is

- A) Proportional
- B) Inverse
- C) Non-Linear
- D) Quadratic



3. Ahmad tended to find the **volume** of an irregularly shaped **stone**. He conducted the experiment shown in the image. What is the **volume of the stone**?



A) $V_{\text{stone}} = 100 \text{ mL} + 80 \text{ mL} = 180 \text{ mL}$

B) $V_{\text{stone}} = \frac{20 \text{ mL}}{80 \text{ mL}} = 0.25$

C) $V_{\text{stone}} = 100 \text{ mL} - 80 \text{ mL} = 20 \text{ mL}$

D) $V_{\text{stone}} = \frac{80 \text{ mL}}{20 \text{ mL}} = 4$

4. A **natural rock or sediment** that contains one or more valuable minerals, typically containing **metals**, that can be mined, treated, and sold at a profit is?

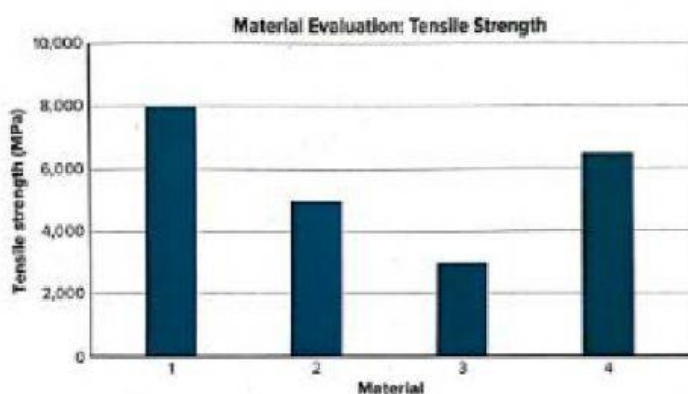
A) Ores

C) Mountain

B) Gas

D) Land

5. Which material should be considered if the product must be **tear-resistant**?



A) 1

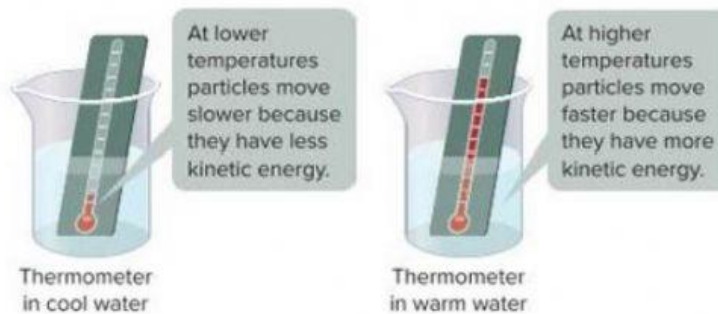
B) 2

C) 3

D) 4

PART B (10*5=50 Marks)

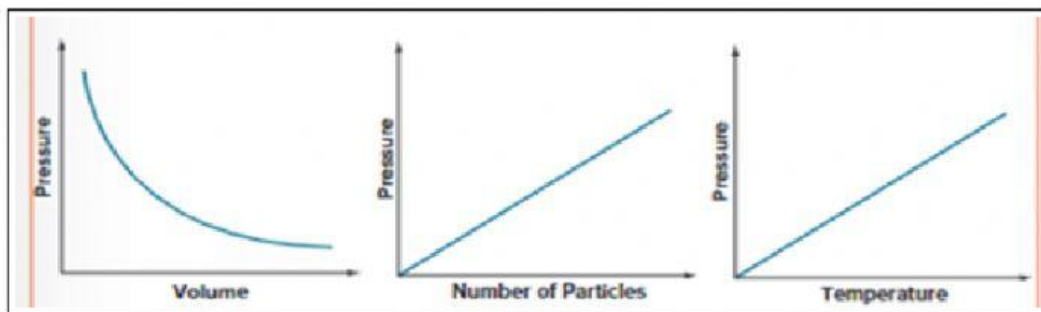
7.



The measure of the **average kinetic energy** of the particles in a material is called?

- A) Kinetic energy
- B) Potential energy
- C) Temperature
- D) Heat

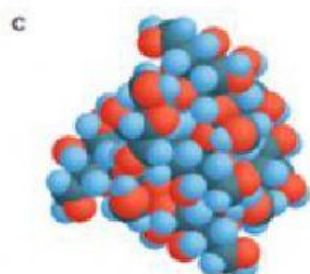
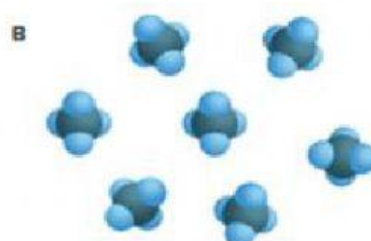
8. Analyze and interpret the below graph.



When the **temperature decrease**, pressure _____

- A. Increases
- B. Decreases
- C. Remains the same
- D. Doubles

9. In a lab you test the properties of a substance. The substance is a **solid**, with a **dull** appearance. It does **not conduct electricity**, but will **dissolve in water**. When hit with a hammer **it shatters in to pieces**. Which **structure** would you predict this substance to have?



10. In the figure below, identify the pair shows **flammability**?



A) A,E

B) D,C

C) B,C

D) A,B

11. Which model shows that **atoms are conserved** in the reaction?

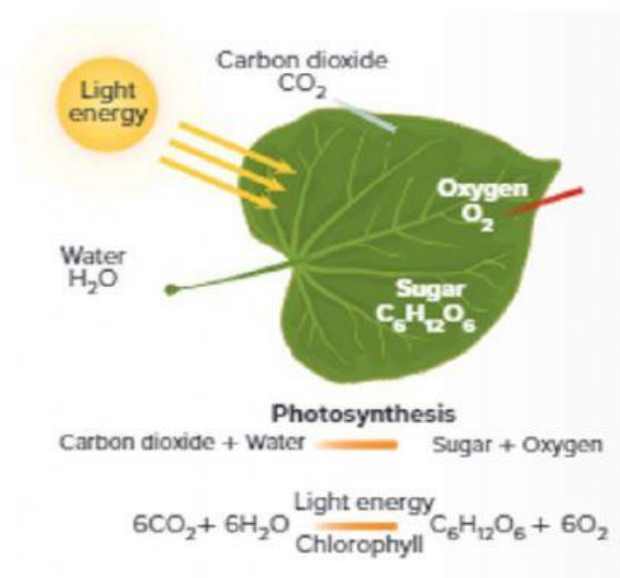


12.

Examine the image to the right.

4. What happens to the energy from the Sun in the leaf?

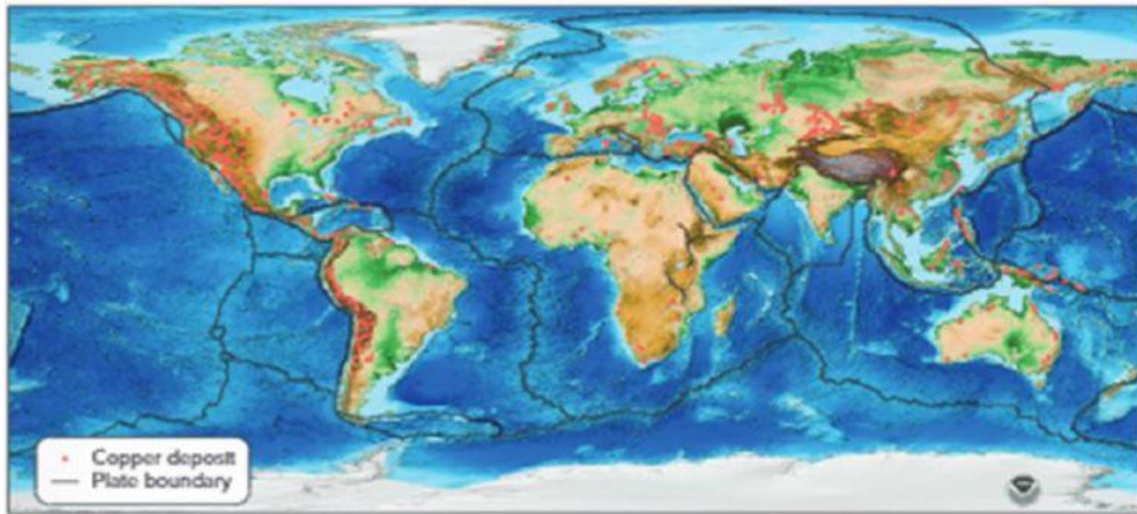
- A The light energy is consumed by the leaf and can no longer be used.
- B The light energy is used to create energy that the plant uses.
- C The light energy is used to break the bonds in the carbon dioxide and water molecules.
- D The light energy is used to break the bonds in the sugar and oxygen molecules.



13. In many areas of the world, **ground water is being withdrawn from aquifers faster than natural recharge** can replace it. This is known as.

- A) Mining
- B) Up-coning
- C) Digging
- D) Ground water overdraft.

14. The map below shows the location of copper deposits that are associated with igneous intrusions.



What patterns do you notice among the **distribution of copper deposits** (Red dots in the map)?

- A) Evenly distributed around the world.
- B) Unevenly distributed around the world.
- C) Accumulated on one area.
- D) No such distribution in the given map.

15. During the reaction, small organic molecules called **monomers bond with each other to form a polymer.**

- | | |
|---------------|-------------------|
| A) Plastic | C) Physical |
| B) Combustion | D) Polymerization |

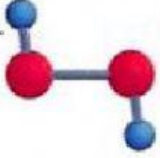
16. The following conditions determines the **production and uses of synthetic materials** of a country **EXCEPT**

- | | |
|---------------|--------------------------------------|
| A) Climate | C) Availability of natural resources |
| B) Population | D) Economic conditions |

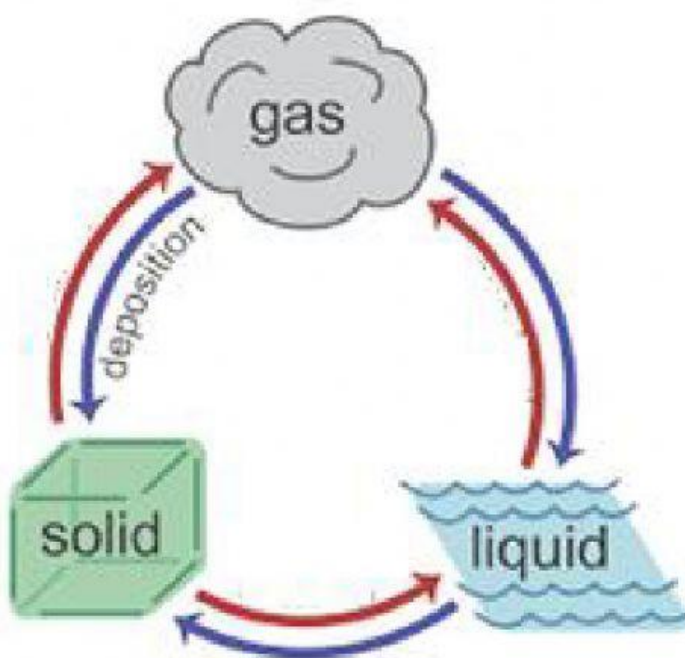
PART C (Free Response Questions) (4*5=20 Marks)

17. Write the **chemical formula** for each compound model.

Key
● = N ● = H ● = O

Compound Model			
Formula			

18. Label the **phase changes of matter** on the given phase change diagram.



19. Differentiate between **endothermic** and **exothermic** reactions:

Reaction	Reactant + thermal energy → Product
Type	
Energy change	
Bonds that contain more energy	
Reaction	Reactant → thermal energy + Product
Type	
Energy change	
Bonds that contain more energy	

20. Complete the below graphic organizer on pressure.

