

Chapter 01

Matter in Our Surroundings

1 Mark Questions

- In which process heat is released
 - Ice converted into water
 - Water converted into ice
 - Water converted into gas
 - Both (a) and (c)
- A gas can be pressurised in a cylinder, what process will occur?
 - Increasing volume of gaseous molecules
 - Particles of gas can be brought close together
 - Particles of gas can be far from each other
 - Both (a) and (b)
- Three compounds A, B and C are melted at 54°C , 38°C and 46°C temperature respectively. Which of the following options correctly represents their melting points in Fahrenheit scale?
 - 114.8°F , 100.4°F , 129.2°F
 - 129.2°F , 100.4°F , 114.8°F
 - 100.4 , 114.8°F , 129.2°F
 - 129.2°F , 114.8°F , 100.2°F
- Which of the following substances can show sublimation?
Water, Ice, Dry ice, Rubber band
 - Water
 - Ice and dry ice
 - Dry ice
 - Rubber band
- Consider the following statement about humidity
 - Process in which liquid converts into gas.
 - Amount of water vapour present in air.Choose the option with correct statement(s)
 - Only I
 - Only II
 - Both I and II
 - Neither I nor II

6. Arrange the gases i.e. NH_3 , CO_2 , CH_4 and SO_2 in increasing order of their diffusion rate.

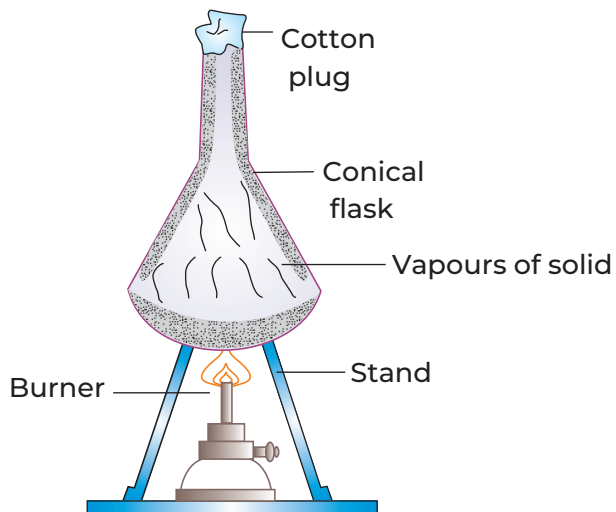
(a) $\text{NH}_3 > \text{CH}_4 > \text{CO}_2 > \text{SO}_2$

(b) $\text{CH}_4 > \text{CO}_2 > \text{NH}_3 > \text{SO}_2$

(c) $\text{SO}_2 < \text{CO}_2 < \text{NH}_3 < \text{CH}_4$

(d) $\text{SO}_2 > \text{CO}_2 > \text{NH}_3 > \text{CH}_4$

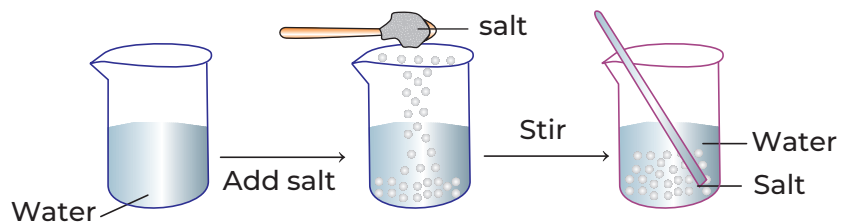
7. A solid matter taken in a conical flask. The stem of the flask was plugged with cotton and heated. The complete setup is shown below.



It was observed that on heating solid starts converting into gaseous state without showing any liquid state. The process is

(a) vaporisation (b) sublimation (c) evaporation (d) solidification

8. Nidhi is conducting the following experiment.



Consider the following observations

I. Particles of matter are very small.

II. Particles of matter have some space between them.

Choose the option containing correct observation(s).

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

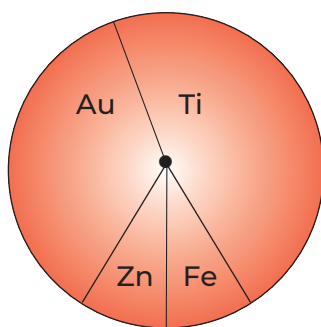
9. There are some substances given below
 (i) Piece of chalk (ii) Water (iii) Air (iv) Oil
 Which substance have maximum kinetic energy?
 (a) (iv) (b) (ii)
 (c) (iii) (d) (i)

10. Consider the following statements.
 I. Kinetic energy of solids is less than that of liquids.
 II. Attraction force between solids is greater than that of gases.
 Which of the above statement (s) is/are correct?
 (a) Only II (b) Only I
 (c) Both I and II (d) Neither I nor II

2 Marks Questions

11. A graph is given for different metals. All the metals have equal volume.
 Graph shows the proportions by mass of each metals.

$$\text{Density} = \frac{\text{mass}}{\text{volume}}$$



- Which of the metal has highest density?
 (a) Au (b) Zn (c) Ti (d) Fe

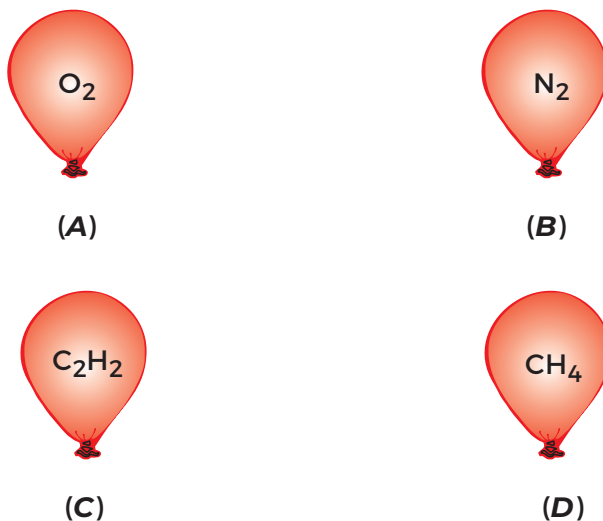
12.

Substance	Boiling point/°C	Melting point/°C
A	80	40
B	120	200
C	60	30
D	100	80

According to the given table, the substance which is disordered at room temperature is

- (a) A (b) B
(c) C (d) D

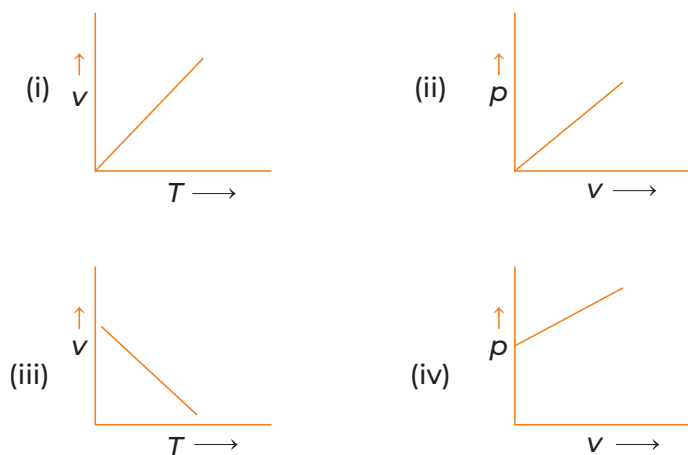
13. Here four identical balloons are shown in the diagram. All the balloons are filled with different gases at same temperature and pressure.



Which pair of balloons deflates same rate?

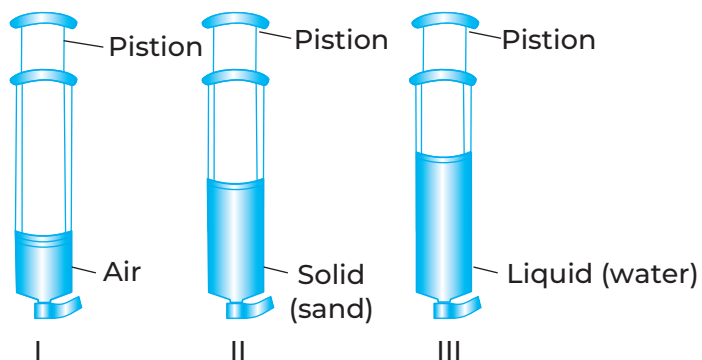
- (a) A and B (b) A and C (c) B and C (d) A and D

14. Which of the following graph represent the correct Charles law?



- (a) (i) (b) (ii) (c) (iii) (d) (iv)

15. Akash took three syringes. Their nozzles were close by tape. After filling some sand particles (in II), and water in one of them (i.e. in III) and he compressed the matter by pressing piston.



In which case piston easily pushed in?

- (a) Case I
- (b) Case II
- (c) Case III
- (d) In all three cases piston pushed with equal ease

Answers

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|---------|---------|---------|---------|---------|--------|--------|--------|--------|---------|
| 1. (b) | 2. (b) | 3. (b) | 4. (c) | 5. (b) | 6. (c) | 7. (b) | 8. (b) | 9. (c) | 10. (c) |
| 11. (c) | 12. (b) | 13. (b) | 14. (a) | 15. (a) | | | | | |
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