



CHEMISTRY

BOOKS - CAMBRIDGE CHEMISTRY (KANNADA ENGLISH)

MATTER IN OUR SURROUNDINGS

Question Hour

1. Which of the following are matter? Chain, air, love, smell, taste almonds, thought, cold,

cold-drink, smell of perfume.



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2. Given reasons for the following observation.

The smell of hot sizzling food reaches you several meters away, but to get the smell from cold food you have to go close.



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3. A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?



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4. What are characteristics of the particles of matter ?



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5. The mass per unit volume of substance is called density. (density = mass/volume).

Arrange the following in order of increasing density-air, exhaust from chimneys, honey, water, chalk, cotton and iron.



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6. Tabulate the differences in characteristics of states of matter.



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7. Comment upon the following:

Rigidity



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8. Give reasons.

A gas fills completely the vessel in which it is kept.



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9. Give reasons.

A wooden table should be called a solid.



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10. Give reasons.

A gas exerts pressure on the walls of the container.



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11. Give reasons.

We can easily move our hand in air but to do the same through a solid block of wood we need a karate expert.



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12. Liquids generally have lower density as compared to solids but you must have observed that ice floats on water find out. Why ?





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13. Convert the following temperature to Celsius scale

(a) 300K

(b) 573K



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14. What is the physical state of water at

(a) $25^{\circ}C$ (b) $100^{\circ}C$



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15. For any substance, why does the temperature remain constant during the change of state?



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16. Suggest a method to liquefy atmospheric gases.



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17. Why does a desert cooler cool better on a hot dry day ?



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18. How does the water kept in an earthen pot (matka) become cool during summer?



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19. Why does our palm feel cold when we put some acetone or petrol or perfume on it?



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20. What are we able to sip hot tea or milk faster from saucer rather than a cup?



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21. What type of clothes should we wear in summer?



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Exercise

1. Convert the following temperature to the Celsius scale

(a) 293K

(b) 470K



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2. Convert the following temperatures to the Kelvin scale.

$25^{\circ}C$



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3. Give reason for the following observations.

Naphthalene balls disappear with time without leaving any solid.



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4. Give reason for the following observations.

We can get the smell of perfume sitting several metres away.



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5. Arrange the following substances in increasing order to forces of attraction between the particles. Water, Sugar, Oxygen.



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6. What is the physical state of water at
(a) $25^{\circ}C$, (b) $0^{\circ}C$, (c) $100^{\circ}C$.



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7. Give reasons to justify.

Water at room temperature is a liquid.



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8. Give two reasons to justify-

An iron almirah is a solid at room temperature



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9. Why is ice at 273K more effective in cooling than water at the same temperature.



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10. What produces more severe burns, boiling water or steam?



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11. Name A,B,C,D,E and F in the following diagram showing change in its state.



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Additional Questions Choose The Correct Answer

1. Which of the following has highest melting point?

A. Ni

B. Fe

C. Pt

D. W

Answer: D



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2. CO_2 can be easily liquefied and even solidified because _____ .

A. It has weak force of attraction

B. It has comparatively more force of attraction than other gases.

C. It has more intermolecular space.

D. It is present in atmosphere.

Answer: B



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3. Which of the following has highest kinetic energy.

A. Particle of ice at $0^{\circ} C$

B. Particle of water at $0^{\circ} C$

C. Particle of steam at $100^{\circ} C$

D. Particle of water at $100^{\circ} C$

Answer: C



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4. Which of the following is most suitable for summer.

A. Cotton

B. Nylon

C. Polyester

D. silk

Answer: A



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5. Kinetic energy of molecules is directly proportional to

A. Temperature

B. Pressure

C. Atmospheric pressure

D. Both a and b

Answer: A



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6. The conversion of 300 K in the Celsius scale is

A. $120^{\circ} C$

B. $100^{\circ} C$

C. $27^{\circ} C$

D. $30^{\circ} C$

Answer: C



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7. The property of diffusion is very fast due to

A. High speed

B. low speed

C. large space between them

D. Both a and c

Answer: D



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8. The S.I. unit of pressure is :

A. Pascal

B. Newton

C. Celsius

D. Kelvin

Answer: A



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9. Bose-Einstein condensate have

A. Very low kinetic energy

B. Low kinetic energy

C. High kinetic energy

D. Highest kinetic energy

Answer: A



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10. The colour of vapours formed on sublimation of iodine solid is

A. Purple

B. colourless

C. Yellow

D. Orange

Answer: A



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Additional Questions Fill In The Blanks

1. Camphor can be purified by the process of

_____.



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2. LPG is used in the kitchens in our homes in the _____ form.



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3. Dry ice means _____ .



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4. The rate of evaporation does not depend on _____.



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5. SI unit of temperature is _____.



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[Additional Questions Match The Following](#)

1.

A

B

- | | |
|----------------|-----------------------------|
| 1) Temperature | a) Kilogram per cubic meter |
| 2) Weight | b) Pascal |
| 3) Volume | c) Kelvin |
| 4) Density | d) Newton |
| 5) Pressure | e) Cubic meter |



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Additional Questions Answer The Following

1. Define condensation ?



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2. What do you mean by latent heat of vapourization ?



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3. What are the characteristics of the particles of matter?



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4. What do you mean by latent heat of fusion?



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5. Two cubes of ice are pressed hard between two palms. After releasing the pressure, the cubes join together. Why?



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6. What is the principle used in a pressure cooker ?



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7. Name the properties that decide whether a given substance exists as a solid, liquid or gas



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8. Give reasons.

A wooden table should be called a solid.



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9. List the factors on which evaporation depends?



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Unit Test Fill In The Blanks

1. The conversion of 300 K in the Celsius scale is



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2. Dry ice means _____ .



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Unit Test Answer The Following

1. Give reason for the following observations.

Naphthalene balls disappear with time without leaving any solid.



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2. Define the terms :

a) Condensation

b) Latent heat of vapourization.



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3. Explain any two factors on which evaporation depends?



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4. Arrange the following substances in increasing order to forces of attraction between the particles. Water, Sugar, Oxygen.



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