INDIAN SCHOOL NIZWA - WORKSHEET

CHEMISTRY

CH: 1 MATTER IN OUR SURROUNDINGS

Name: ---------- Date: 06.05.2025 Class: IX Sec: ----

1. Sugar crystals dissolve faster in hot water than in cold water. Why?
2. The melting points of two substances P & Q are 315 K and 405 K respectively. Which of them have stronger bonds?
3. Why are we able to sip hot tea or milk faster from a saucer rather than a cup?
4. Select the substances which undergo sublimation.

. Naphthalene, Solid water, Ammonium chloride, Common salt, Camphor, Solid CO_2

5. Latent heats of vaporization of two liquids A & B are 100 J/Kg and 150 J/kg respectively. Which one can produce more cooling effect and why?
6. What is evaporation? In the following examples state which factor is responsible for the change in the rate of evaporation and how?
   a) Clothes dry faster on a windy day.
   b) Wet clothes dry faster on spreading them.
   c) Clothes dry faster in sun than in shade.
   d) Clothes take longer time to dry on a rainy day.
7. "Evaporation causes cooling". Explain.
8. Convert the following temperatures into Celsius scale. a) 273 K b) 500 K c) 343 K
9. People sprinkle water on the roof after a hot sunny day. Why?
10. Give reasons:

a) A gas exerts pressure on the walls of the container.

b) Naphthalene balls disappear with time without leaving any solid residue.

11. The boiling points of diethyl ether, acetone and n-butyl alcohol are 35 ^{0}C, 56 ^{0}C and 118 ^{0}C respectively. Convert their boiling points in kelvin scale.

INDIAN SCHOOL NIZWA - WORKSHEET

Reasoning Assertion Questions

A) Both assertion and reason are correct statements, and reason is the correct explanation of the assertion.

(B) Both assertion and reason are correct statements, but reason is not the correct explanation of the assertion.

(C) Assertion is correct, but reason is wrong statement.

(D) Assertion is wrong, but reason is correct statement.

1 .**Assertion**: The rate of diffusion of liquids is more than solids.

Reason : The intermolecular force of attraction is more in solids than in liquids.

2. **Assertion**: During evaporation of a liquid, the temperature of the liquid remains unaffected.

Reason: Kinetic energy of molecules is directly proportional to temperature.

3. **Assertion**: Naphthalene balls disappear with time without leaving any residue.

Reason: Naphthalene balls convert from solid to liquid state very quickly.

4. **Assertion**: Ice floats on water.

Reason: Liquids have lower density than solids.

5. **Assertion** : Steam is better than boiling water for heating purposes.

Reason: Steam contains more heat in the form of latent heat than boiling water.