

**Test / Exam Name: Chemistry - Matter In Our Surroundings**
**Standard: 9th**
**Subject: Science**
**Student Name: .....**
**Section: .....**
**Roll No.: .....**
**Questions: 26 Time: 01:30 hh:mm Marks: 40**
**Instructions**

1. Draw images for reference ( or wherever needed)
2. Make sure to write in good handwriting
3. New section on new page
4. Honesty is the best policy.

**Q1.** During hot sunny day, people sprinkle water on the roof because:

- A** They have more water to sprinkle  
**B** Water is cheapest thing available  
**C** It has high latent heat of vapourisation  
**D** None of the above

**SECTION-A**
**1 Mark**
**Q2.** Which among the following statements is true:

- A** The rate of evaporation in a coastal area is less because of high humidity  
**B** The rate of evaporation in a coastal area is more because of presence of water bodies  
**C** The rate of evaporation is independent of humidity  
**D** The rate of evaporation is directly proportional to humidity

**1 Mark**
**Q3.** A few substances are arranged in the increasing order of forces of attraction between their particles. Which one of the following represents a correct arrangement?

- A** Water, air, wind  
**B** Air, sugar, oil  
**C** Oxygen, water, sugar  
**D** Sugar, juice, air

**1 Mark**
**Q4.** Which of the following statement is incorrect?

- A** The particles of matter are very, very small.  
**B** The particles of matter attract one another.  
**C** The particles of some of the matter are moving constantly.  
**D** The particles of all the matter have spaces between them.

**1 Mark**
**Q5.** Early philosophers classified matter in the form of \_\_\_\_\_ basic elements:

- A** One  
**B** Two  
**C** Three  
**D** Five

**1 Mark**
**Q6.** The kinetic energy is proportional to temperature, thus evaporation:

- A** Proceeds slowly at higher temperatures  
**B** Stops  
**C** Proceeds quickly at higher temperatures  
**D** Does not occur at all

**1 Mark**
**Q7.** On heating the solid \_\_\_\_\_?

- A** Particles gain energy  
**B** Particles loses energy  
**C** Energy remain constant  
**D** None of the above

**1 Mark**
**Q8.** The state or phase of a given set of matter can change depending on \_\_\_\_\_?

- A** Temperature  
**B** Pressure  
**C** Both a and b  
**D** None of above

**1 Mark**
**Q9.** The boiling point of water is 100°C. Express this in SI units (Kelvinscale).

**Q10.** Name one common substance which can be easily changed from one state to another by heating or cooling.

**Q11. Assertion (A):** Liquids diffuses more easily as compared to gases.  
**Reason (R):** Intermolecular forces are greater in liquids than in gases.

- A** Both assertion and reason are true, and reason is the correct explanation of assertion.  
**B** Both assertion and reason are true, but reason is not the correct explanation of assertion.  
**C** Assertion is true, but reason is false.  
**D** Assertion is false, but reason is true.

**1 Mark**
**1 Mark**
**Q12.** What is the general name of:

Rigid form of matter?

**1 Mark**
**Q13.** A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?

**Q14.** What do you understand by the term 'latent heat'? What are the two types of latent heat?

**Q15.** Fill in the following blanks with suitable words:

When steam condenses to form water, heat is \_\_\_\_\_.

**Q16.** Define the following terms:

Boiling

**1 Mark**
**SECTION-B**
**Q17.** Cotton being a solid floats on water. Why?

**Q18.** Name the chemical compound contains in nail-polish remover.

**Q19.** Explain why, a small volume of water in a kettle can fill a kitchen with steam.

**Q20.** Why are gases so easily compressible whereas it is almost impossible to compress a solid or a liquid?

**2 Marks**
**2 Marks**
**2 Marks**
**2 Marks**
**Q21.** How is ammonia gas liquefied?

**2 Marks**
**Q22.** Define 'melting point' of a substance? What is the melting point of ice?

**2 Marks**
**Q23.** Explain why, osmosis can be considered to be a special kind of diffusion. Classify the following into (i) osmosis, and (ii) diffusion:

**3 Marks**

1. Swelling up of a raisin on keeping in water.
2. Spreading of virus on sneezing.
3. Earthworm dying on coming in contact with common salt.
4. Shrinking of grapes kept in thick sugar syrup.
5. Preserving of pickles in salt.
6. Spreading of smell of cake being baked in the kitchen.
7. Aquatic animals using oxygen dissolved in water during respiration.

**Q24.** Explain why, we can easily move our hand in air but to do the same through a plank of wood, we need a karate expert.

**3 Marks**
**Q25.** Look at the figure and suggest in which of the vessels A, B, C or D, the rate of evaporation will be the highest? Explain.

**3 Marks**

**Q26.** Why does a desert cooler cool better on a hot dry day?

**3 Marks**