

Class: IX
Subject: chemistry
Topic: Matter in our surroundings
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1: Matter has _____.

1. no mass but occupies space
2. mass but occupies no space
3. mass and occupies space
4. no mass and occupies no space

Answer: 3

Explanation: Matter is that Physical substance in general, as distinct from mind and spirit; that which occupies space and possesses rest mass, especially as distinct from energy

2: The gaseous form of water is called as _____.

1. water gas
2. water vapour
3. fog
4. snow

Answer: 2

Explanation: Water vapor, or water vapour or aqueous vapor, is the gaseous phase of water. It is one state of water within the hydrosphere. Water vapor can be produced from the evaporation or boiling of liquid water or from the sublimation of ice. Unlike other forms of water, water vapor is invisible.

3: The state of matter with only one free surface is _____.

1. liquid
2. gas
3. solid
4. plasma

Answer: 1

Explanation: A **liquid** is a nearly incompressible fluid that conforms to the shape of its container but retains a (nearly) constant volume independent of pressure. As such, it is one of the four fundamental states of matter (the others being solid, gas, and plasma), and is the only state with a definite volume but no fixed shape.

4: In gases, particles vibrate _____.

1. about their mean position
2. about a vertical axis
3. about a horizontal axis
4. in any direction

Answer: 4

Explanation: The particles of gas, either atoms or molecules, have too much energy to remain attached to one other. They move by translation, rotation and vibration, but in this case the translational motion is the most important. The particles are on average very far apart and collide incessantly many times a second. Because of the distance between them it is assumed that the forces of attraction between the particles are negligible.

5: Mixing of gases is called _____.

1. diffusion
2. effusion
3. filtration
4. sedimentation

Answer: 1

Explanation: Diffusion involves mixing of gases

6: A property not possessed by a fluid is _____.

1. it can flow
2. it has mass
3. it has a definite shape
4. can be perceived by our senses

Answer: 3

Explanation: Fluids don't have definite shape. They take the shape of the Container

7: Which among the following is a solid at room temperature?

1. Nitrogen
2. Potassium permanganate
3. Bromine
4. Helium

Answer: 2

Explanation: Factual

8: Which of these is a characteristic property of gases?

1. Gases are not at all rigid.
2. Gases are not compressible.
3. Gases have particles in fixed positions.
4. Gases have high density.

Answer: 1

Explanation: Factual

9: A solid has _____.

1. maximum intermolecular space
2. definite mass but no definite volume
3. very high compressibility
4. maximum intermolecular force of attraction

Answer: 4

Explanation: Factual

10: Conversion of gas to liquid is called _____.

- 1 condensation
- 2 sublimation
- 3 vaporization
- 4 solidification

Answer: 1

Explanation:Condensation is the change of water from its gaseous form (water vapor) into liquid water. **Condensation** generally occurs in the atmosphere when warm air rises, cools and loses its capacity to hold water vapor. As a result, excess water vapor **condenses** to form cloud droplets.

11: The process by which wet clothes dry up is called _____.

1. evaporation
2. boiling
3. condensation
4. solidification

Answer: 1

Explanation:Evaporation is a type of vaporization of a liquid that occurs from the surface of a liquid into a gaseous phase that is not saturated with the **evaporating** substance. The other type of vaporization is boiling, which is characterized by bubbles of saturated vapor forming in the liquid phase

12: A solid that sublimates on heating is _____.

1. sodium chloride
2. copper sulphide
3. lead sulphide
4. ammonium chloride

Answer: 4

Explanation: Factual

13: Matter changes from one state to another with change in _____.

1. density
2. temperature
3. volume
4. height

Answer: 2

Explanation: With change in temperature matter changes its phase

14: The process of a solid changing into liquid is called _____.

1. liquefaction
2. melting
3. freezing
4. solidification

Answer: 2

Explanation: Freezing is a phase transition in which a liquid turns into a solid when its temperature is lowered to its freezing point

15: The freezing point of pure water is _____.

1. 100°C
2. 0°C
3. 5°C
4. 78.3°C

Answer: 2

Explanation: Factual

16: The force between particles of matter is called as _____.

1. cohesive force
2. adhesive force
3. kinetic energy
4. thermal energy

Answer: 1

Explanation: Cohesive force is the force of attraction between the molecules of the same substance. Cohesive force is stronger in solids than in liquid. Cohesive force is stronger in liquids than in gas.

17: Particles of matter are _____.

1. stationary
2. vibrating in one position
3. in continuous motion
4. rotating about an axis

Answer: 3

Explanation: Factual

18: The temperature at which vapour changes into liquid is called _____.

1. freezing point
2. melting point
3. boiling point
4. liquefaction point

Answer: 4

Explanation: **Liquefaction**, sometimes **liquefaction**, refers to any process which either generates a [liquid](#) from a [solid](#) or a [gas](#), or generates a non-liquid [phase](#) which behaves in accordance with [fluid dynamics](#)

19: Temperature is a measure of _____.

1. total kinetic energy of molecules
2. total potential energy of molecules
3. average potential energy of molecules
4. average kinetic energy of molecules

Answer: 1

Explanation: Temperature is a measure of the average heat or thermal energy of the particles in a substance. Since it is an average measurement, it does not depend on the number of particles in an object. In that sense it does not depend on the size of it. For example, the temperature of a small cup of boiling water is the same as the temperature of a large pot of boiling water. Even if the large pot is much bigger than the cup and has millions and millions more water molecules.

20: For any substance the temperature remains same during the change of state due to _____.

1. loss of heat
2. latent heat
3. less supply of heat
4. lattice energy

Answer: 2

Explanation: Latent heat is energy released or absorbed, by a body or a thermodynamic system, during a constant-temperature process. An example is a state of matter change, meaning a phase transition, such as ice melting or water boiling.

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