

## States and Phases of Matter

Sr	Questions	Answers Choice
1	What type of molecular shape is commonly found in liquid crystals.	<p>A. Spherical</p> <p>B. Rod like and elongated</p> <p>C. Spiral</p> <p>D. Cubic</p>
2	Which of the following is a characteristic property of crystalline solids.	<p>A. they have a range of melting points</p> <p>B. They are isotropic</p> <p>C. they have a definite and sharp melting point</p> <p>D. They lack a regular arrangement of particles</p>
3	What happens to the volume of water when it freezes?	<p>A. It contracts by 9%</p> <p>B. It remains the same</p> <p>C. It expands by 9%</p> <p>D. It evaporates completely</p>
4	Which of the following is a polar molecule that shows permanent dipole-dipole interactions.	<p>A. <math>\text{CHCl}_3</math></p> <p>B. <math>\text{CH}_4</math></p> <p>C. <math>\text{Cl}_2</math></p> <p>D. <math>\text{H}_2</math></p>
5	Which of the following halogens has the highest boiling point.	<p>A. <math>\text{I}_2</math></p> <p>B. <math>\text{Cl}_2</math></p> <p>C. <math>\text{F}_2</math></p> <p>D. <math>\text{Br}_2</math></p>
6	What is vapour pressure.	<p>A. Atmospheric pressure.</p> <p>B. Pressure exerted by a liquid at <math>0^\circ\text{C}</math></p> <p>C. pressure exerted by vapour in equilibrium with the liquid at a given temperature</p> <p>D. Pressure inside the liquid only</p>
7	Earthenware pots keep water cool because.	<p>A. They are made of clay</p> <p>B. They reflect sunlight</p> <p>C. They absorb water</p> <p>D. They allow water to evaporate through pores</p>
8	Why is the compression of solids not possible?	<p>A. The particles are fixed in place and cannot move closer</p> <p>B. Their particles are widely spaced</p> <p>C. The particles are charged</p> <p>D. Solids are made of gases</p>
9	Which of the following materials is an example of an amorphous solid?	<p>A. Glass</p> <p>B. Ice</p> <p>C. Diamond</p> <p>D. Sodium Chloride</p>
10	Surface tension of a liquid is due to.	<p>A. inward pull of surface molecules</p> <p>B. upward pull from the surface</p> <p>C. collision of molecules</p> <p>D. repulsive forces</p>
11	Which of the following statements about ideal gases is true.	<p>A. they have strong intermolecular forces</p> <p>B. Their particles have significant volume</p> <p>C. Their volume is mainly due to particle size</p> <p>D. They have negligible intermolecular forces</p>
12	What is the role of a pressure cooker in boiling water.	<p>A. It lowers atmospheric pressure</p> <p>B. It allows water to evaporate quickly</p>

		<p>C. &lt;p&gt;It increases external pressure raising boiling point&lt;/p&gt;</p> <p>D. &lt;p&gt;It cools the steam&lt;/p&gt;</p>
13	Liquid crystals exhibit properties.	<p>A. &lt;p&gt;Only like solids&lt;/p&gt;</p> <p>B. &lt;p&gt;Only like liquid&lt;/p&gt;</p> <p>C. &lt;p&gt;Between solids and liquids&lt;/p&gt;</p> <p>D. &lt;p&gt;Unlike solids or liquids&lt;/p&gt;</p>
14	Liquid are approximately how many times less compressible than gases.	<p>A. &lt;p&gt;10&lt;/p&gt;</p> <p>B. &lt;p&gt;105&lt;/p&gt;</p> <p>C. &lt;p&gt;100&lt;/p&gt;</p> <p>D. &lt;p&gt;1000&lt;/p&gt;</p>
15	Which of the following is essential for hydrogen bond formation.	<p>A. &lt;p&gt;Hydrogen&amp;nbsp; bonded to a metal&lt;/p&gt;</p> <p>B. &lt;p&gt;Hydrogen bonded to high electongtive atoms F,O, or N&lt;/p&gt;</p> <p>C. &lt;p&gt;Hydrogen boned to non pola ratom&amp;nbsp;;&lt;/p&gt;</p> <p>D. &lt;p&gt;Present of pi bond&lt;/p&gt;</p>
16	amorphous solids are typically	<p>A. &lt;p&gt;Rigid and hard&lt;/p&gt;</p> <p>B. &lt;p&gt;Found in lump or fine powder form&lt;/p&gt;</p> <p>C. &lt;p&gt;Have a shrp melting point&lt;/p&gt;</p> <p>D. &lt;p&gt;Always&amp;nbsp;; crystalline in structure&lt;/p&gt;</p>
17	What is the value of water's enthalpy of vaporization.	<p>A. &lt;p&gt;21 kJ/mol&lt;/p&gt;</p> <p>B. &lt;p&gt;41 kJ /mol&lt;/p&gt;</p> <p>C. &lt;p&gt;30 kJ /mol&lt;/p&gt;</p> <p>D. &lt;p&gt;60 kJ /mol&lt;/p&gt;</p>
18	When does a liquidi start boiling.	<p>A. &lt;p&gt;When temperatur reahes 100 oC&lt;/p&gt;</p> <p>B. &lt;p&gt;When its vaporu pressur eequals atmospheric pressure&lt;/p&gt;</p> <p>C. &lt;p&gt;When all molecules turn into vapour&lt;/p&gt;</p> <p>D. &lt;p&gt;When surface tension becomes zero&lt;/p&gt;</p>
19	Why does ice float on water.	<p>A. &lt;p&gt;It has lower density than water&lt;/p&gt;</p> <p>B. &lt;p&gt;It is heavier than water&lt;/p&gt;</p> <p>C. &lt;p&gt;It forms ionic bonds&lt;/p&gt;</p> <p>D. &lt;p&gt;It denser than water&lt;/p&gt;</p>
20	The expasnsion of liquidis increae with temperature is	<p>A. &lt;p&gt;What happens to the kinetic energy of liquid molecules when cooled.&lt;/p&gt;</p> <p>B. &lt;p&gt;Increases&lt;/p&gt;</p> <p>C. &lt;p&gt;Remain unchanged&lt;/p&gt;</p> <p>D. &lt;p&gt;Decreases, and the liquid may turn into solid&lt;/p&gt;</p> <p>E. &lt;p&gt;Becomes Zero&lt;/p&gt;</p>