

## Physics (New Book) - 9th Class Physics English Medium Chapter 7 Preparation

Q1. Explain how a submarine moves up the waters surface and down into water

**Ans 1:** Submarine can also travel over and under water, when weight of water equal to its volume is greater than its weight. Submarine has a system of tanks. When tanks are filled of sea water, weight of submarine increases, As soon as weight of submarine become greater than upthrust of water, it dives into water and remains under water

Q2. Why air become thinner and thinner as we go up

**Ans 1:** Air decrease with height and force of gravity also decreases with height so air become thinner and thinner as we go up

Q3. Define Elastic Limit

**Ans 1:** The maximum stress which a body can bear without causing permanent deformation is called elastic limit.

Q4. Write two properties of liquids.

**Ans 1:** The distance between the molecules of liquid are more than in solids Thus attractive forces between them are weaker. Like solids molecules of a liquid also vibrate about their mean position but are not rigidly held with each other. Liquid attains the shape of a container to which it is put Such as water attain the shape of that glass in which water.

Q5. Define elasticity and stress

**Ans 1:** Density: Density of a substance is defined as its mass per unit volume.  
Unit: SI unit of density is kilogram per cubic metre

**Ans 2:** Formula: density= Mass of substance/Volume of that substance

**Ans 3:** Density of gold: The value of density of gold is  
Elasticity: Elasticity is the property of a body to restore its original size and shape as the deforming force ceases to act is called elasticity.  
Stress: The force acting on unit area at the surface of a body is called stress

**Ans 4:** Formula: stress= force/Area

**Ans 5:** Unit: in SI the unit of stress is Newton per square meter

Q6. How does vacuum cleaner work

**Ans 1:** The fan in a vacuum cleaner lowers air pressure in its bucket. The air from outside enters into it quickly carrying dust

particles. In this way dust particles are collected at the bottom of the bucket.

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Q7. Can we use a hydrometer to measure the density of milk?

**Ans 1:** Hydrometer is a device which is used to measure the density of liquids. So it can be used to measure the density of milk.

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Q8. Does there exist a fourth state of matter

**Ans 1:** Yes, Plasma is a fourth state of matter i.e At very high temperature, the collision between atoms and molecules tears off their electrons. Atoms become positive ions. This ionic state of matter is called plasma.

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Q9. Write some important features of kinetic molecular model of matter

**Ans 1:** Kinetic Molecular Model of Matter  
Matter is made up of particles called molecules  
The molecule's remain in continuous motion'  
Molecules attract each other

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Q10. Define pressure and write its formula.

**Ans 1:** Pressure :  
The force acting normally per unit area on the surface of a body is called pressure.  
SI unit of pressure is  $\text{Nm}^{-2}$  also called pascal (Pa).

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