# Introductory Questions for Class 9<sup>th</sup> science (Physical Science)

#### **Topic 1- States of matter**

Q1. How can you define matter?	Matter is something that has mass & occupies space.
Q2. In how many states does it exists?	Matter exists in 5 states.
Q3. Name the fourth state of matter?	Plasma or Bose-Einstein condensate

#### **Topic 2- Evaporation**

Q1. Which molecule has chemical formula H2O?	Water
Q2. What are the 3 states of water?	Liquid, Solid, Gas
Q3. Which process is responsible for conversion of liquid into vapour?	Evaporation (Problematic)

#### **Topic 3- Mixture**

Q1. What is the common beverage of our country?	Tea, coffee
Q2. What are the components of Tea?	Water, tea leaves, sugar, milk, etc.
Q3. Substances that are made up of more than one type of matter is called?	Mixture (Problematic)

## **Topic 4- Solution**

Q1. What are the three states of matter?	Solid, liquid, gas
Q2. Give an example of liquid state?	Water
Q3. If we dissolve sugar in water, what does it forms?	It forms sugar solution

## **Topic 5- Colloidal Solution**

Q1. What is a solution?	It is the homogeneous mixture of two

	or more substances.
Q2. Give few examples of solution.	Soda water, lemonade
Q3. What type of solution is a milk or blood?	Colloidal solution (Problematic)

#### **Topic 6- Elements**

Q1. Which wire is commonly used at home for wiring?	Copper wire
Q2. Copper wire is made up of?	copper
Q3. What kind of substance is copper?	Copper is an element

## **Topic 7- Atoms**

Q1. Jewellery is commonly made up of?	Gold, silver, etc.
Q2. What kind of substance is gold?	It is an element
Q3. What is the building block of an element?	Atoms (Problematic)

## **Topic 8- Molecules**

Q1. Which gases are present in atmosphere?	Nitrogen, oxygen, carbon dioxide, etc.
Q2. Which gas is essential for breathing?	oxygen
Q3. In which form oxygen exists?	It exists as oxygen molecule.

## Topic 9- Thomson's atomic model

Q1. What is the purest form of matter?	Elements and compounds
Q2. What is the smallest unit of element?	Atom
Q3. Which atomic model is known as	Thomson's atomic model

plum pudding model?	(Problematic)

## Topic 10- Rutherford's atomic model

Q1. What was the drawback of Thomson's atomic model?	It failed to explain the stability of atom.
Q2. Who performed $\alpha$ -scattering experiment?	Rutherford
Q3. Which atomic model was proposed by Rutherford?	Nuclear atomic model

#### **Topic 11- Uniform circular motion**

Q1. What is the smallest unit of matter?	Atom
Q2. Give examples of sub-atomic particles?	Electron, proton, neutron
Q3. Which type of motion is of electron around its nucleus?	Uniform circular motion (Problematic)

#### Topic 12- First law of motion

Q1. What do you understand by motion?	It is the change of position of an object over time.
Q2. The rules made by government is known as?	Law
Q3. Which law of Newton is known as law of inertia?	First law of motion (Problematic)

## **Topic 13- Conservation of momentum**

Q1. What is meant by momentum?	It is the product of mass and velocity of an object.
Q2. State Newton's 3 <sup>rd</sup> law of motion?	Every action has its equal & opposite reaction.
Q3. Systems of gun and bullets are example of?	Conservation of momentum (Problematic)

#### **Topic 14- Gravitation**

Q1. What do you understand by force?	It is the push or pull of an object.
Q2. If we throw a stone from certain height, what will happen after sometime?	The stone will fall down.
Q3. Which force is responsible for falling of objects?	Gravitational force

#### Topic 15- Mass & Weight

Q1. When you are holding an empty bucket, how do you feel?	Bucket feels lighter and easy to lift.
Q2. If you fill the bucket with water and try to lift, how does it feel?	Bucket becomes heavier
Q3. Which property makes bucket lighter or heavier?	Weight of the bucket

## **Topic 16- Archimedes' Principle**

Q1. When an object is dipped in water, what happens?	It feels lighter than its weight
Q2. Which force acts on the dipped objects in water?	Buoyant force
Q3. Which principle is based on the working of buoyant force?	Archimedes' Principle

## **Topic 17- Kinetic Energy**

Q1. What do you understand by energy?	Energy is the capacity to do work.
Q2. If we kick a stationary ball, what will happen?	It comes to motion
Q3. Which form of energy is present in moving object?	Kinetic energy (Problematic)

#### **Topic 18- Potential Energy**

Q1. What is the biggest source of energy?	Sun
Q2. Which form of energy is present moving body?	Kinetic energy
Q3. Which type of energy is present in stationary objects?	Potential energy (Problematic)

#### **Topic 19- Sound**

Q1. Give an example of vehicles?	Car
Q2. What do you when someone is infront of your car?	We blow horn
Q3. What does blowing of horn produces?	Sound

#### **Topic 20- Human Ear**

Q1. How many sense organs do we have?	Five sense organs
Q2. What are the 5 types of sense organs?	Eyes, ear, nose, skin, tongue
Q3. Which organ helps us in hearing?	Ear