## Class 9 | Science

## QUIZ-01

MISSION GYAN

## **CHAPTER-3 | Atoms and Molecules**

1. Who proposed the Law of Conservation of Mass?			6. Which of the following is a polyatomic ion?			
A. Dalton	B. Lavoisier		A. Na <sup>+</sup>	B. Cl <sup>-</sup>		
C. Proust	D. Rutherford	(B)	C. NH <sub>4</sub> +	D. O <sup>2-</sup>	(C)	
Explanation: Antoine Lavoisier established the Law			<i>Explanation</i> : NH₄+ (Ammonium) is a polyatomic ion			
of Conservation of Mass, stating that mass is			composed of multiple atoms with a net charge.			
neither created nor destroyed in a chemical			7. Which law states that elements are always present			
reaction.			in fixed mass ratios in compounds?			
2. What is the atomicity of a sulphur molecule?			A. Law of Multiple Proportions			
A. Monoatomic	B. Diatomic		B. Law of Conservation of Mass			
C. Triatomic	D. Polyatomic	(D)	C. Law of Constant Proporti <mark>o</mark> ns			
Explanation: A sulphur molecule is polyatomic,			D. Law of Atomicit	y	(C)	
meaning it contains multiple atoms bonded			Explanation: The Law of Constant Proportions says			
together.			that in a compound, elements are combined in			
3. What is the symbol of sodium derived from?			fixed ratios by mass.			
A. English name	A. English name B. Latin name		8. What is the formula of calcium hydroxide?			
C. Greek name	D. Place of disc	overy	A. CaOH	B. Ca(OH)		
1		(B)	C. CaOH <sub>2</sub>	D. Ca(OH) <sub>2</sub>	(D)	
Explanation: The symbol Na is derived from the Latin			Explanation: The valency of calcium is 2 and that of			
name of sodium, "Natrium."			hydroxide is 1, so the formula is Ca(OH)2.			
4. What is the atomic mass of oxygen?			9. Which of the following is a correct pair of element			
A. 12 u	B. 14 u		and its symbol?			
C. 16 u	D. 18 u	(C)	A. Potassium – Po	B. Iron – Ir		
<b>Explanation</b> : The atomic	mass of oxygen is 16 ι	ı as	C. Silver – Ag	D. Sodium – So	(C)	
per the standard atomic mass chart.			Explanation: The correct symbol for silver is Ag,			
5. What is the molecular mass of H₂O?			derived from its Latin name "Argentum."			
A. 15 u	A. 15 u B. 16 u		10. Which type of bond holds atoms in a molecule			
C. 17 u	D. 18 u	(D)	together?			
<i>Explanation</i> : Water (H₂O) has 2 hydrogen atoms (1 u			A. Magnetic force	B. Gravitational	B. Gravitational force	
each) and 1 oxygen atom (16 u), so the total is 2×1 +			C. Chemical bond D. Electric current (C)			
16 = 18 u.			Explanation: Atoms in a molecule are held together			
			by chemical bonds			