



# Unique Past Papers Chapter Wise

## CHEMISTRY 9

(2018, 2019, 2021, 2022 & 2023)

**Lahore Board, Faisalabad Board, Multan Board, Gujranwala Board, Sahiwal Board, D.G. Khan Board, Sargodha Board, Rawalpindi Board & Bahawalpur Board.**

### Unit 1: Fundamental of Chemistry

#### Branch of Chemistry

- Q.1: Define Chemistry explain any two branches of chemistry. 13 Time**
- Q.2: Explain difference between physical chemistry and biochemistry. 3 Times**
- Q.3: Differentiate between Nuclear chemistry and Environmental chemistry. 8 Times**
- Q.4: Define organic chemistry and which industries covered by it. 1 Time**
- Q.5: Write any two applications of inorganic chemistry. 1 Time**

#### Basic Definition

- Q.6: Write difference between physical and chemical properties. 12 Times**
- Q.7: Define matter and mixture. 5 Times**
- Q.8: Define physical properties. Write the names of two physical properties. 2 Times**
- Q.9: Define mixture. 1 Time**
- Q.10: Write down name of any two elements which were discovered in early ages. 1 Time**



- Q.11: An atom having  $A = 238$  &  $Z = 92$ . Determine number of protons and neutrons. 3 Times
- Q.12: What is meant by element? Explain with example. 4 Times
- Q.13: Define symbol and valency with example. 2 Times
- Q.14: Human body is made up of how many elements? Write their names. 1 Time
- Q.15: Give symbols of Arsenic and Silver. 1 Time
- Q.16: Define element. Write the names of element that occurs in liquid state. 2 Times
- Q.17: What is difference between element and compound? 2 Times
- Q.18: Differentiate between Ionic and covalent with one example each. 1 Time
- Q.19: What is meant by mixture? Give one example. 2 Times
- Q.20: What is difference between compound and mixture? 2 Times
- Q.21: What is the difference between atomic number and mass number? 2 Times
- Q.22: Define relative atomic mass on the basis of C-12. 2 Times
- Q.23: Define atomic mass unit. Why is it needed? 1 Time
- Q.24: Write two significance of chemical formula. 1 Time
- Q.25: Define chemical formula and also give one example. 1 Time
- Q.26: What is the significance of writing an element in a symbol? 1 Time
- Q.27: Define molecular formula and give example. 3 Times
- Q.28: Write down the chemical formula of silicon dioxide and calcium chloride. 2 Times
- Q.29: Write chemical formulas of caustic soda and washing soda. 3 Times
- Q.30: Write down the chemical formula of ammonia and sugar. 5 Times
- Q.31: Write down chemical formula of calcium phosphate and sodium chloride. 1 Times
- Q.32: Write down chemical formula of sugar and silicon dioxide. 1 Time
- Q.33: Calculate the molecular mass of nitric acid. 7 Times**
- Q.34: Define formula unit and formula Mass. 1 Time
- Q.35: Calculate molecular mass of  $H_2O$ . 1 Time

### Chemical Species

- Q.36: What is meant by Ion? Give example. 2 Times
- Q.37: How a cation or an anion is formed? 1 Time
- Q.38: Write two difference between atom and ion. 7 Times**
- Q.39: Define cation and anion and give one example of each. 6 Times
- Q.40: Distinguish between atom and molecule. 1 Time



- Q.41: What will be the nature of charge on an atom when it loses or gains electron. 1 Time
- Q.42: Write two difference between molecule and molecular ions. 7 Times
- Q.43: How free radical is formed? 7 Times
- Q.44: Differentiate between Ion and Free Radical. 1 Time
- Q.45: Define free radical, how it is represented? 1 Time
- Q.46: Define diatomic molecule and give example. 3 Times
- Q.47: Define Triatomic molecule and Polyatomic molecule. 2 Times
- Q.48: Write monoatomic molecule with one example. 1 Time
- Q.49: Define molecule and give an example of triatomic molecule. 1 Time

### Gram atomic, molecular and formula mass

- Q.50: Differentiate between gram atomic mass and gram molecular mass. 4 Times
- Q.51: Define Gram Formula Mass with one example. 1 Time

### Avogadro Number and Mole

- Q.52: Define Avogadro's Number. 6 Times
- Q.53: What is relationship between Avogadro's number and mole? 1 Time
- Q.54: Define mole and give example. 5 Times

### Chemical Calculations

- Q.55: What would be the number of moles in 9.0 gram carbon? 4 Times
- Q.56: Calculate the gram molecules in 40 g of phosphoric acid. 4 Times

## Unit 2: Structure of Atom

### Discovery of Cathode rays and Electrons

- Q.1: Who discovered proton and neutron? 4 Times
- Q.2: What is Plum Pudding theory? 10 Times
- Q.3: Write main points of Dalton Atomic theory.
- Q.4: Complete the following equation. 1 Time
- Q.5: What are Cathode rays? Who discovered it? 1 Time
- Q.6: How James Chadwick discovered Neutron?
- Q.7: Write two properties of Neutron particles.
- Q.8: Write down the observations made by Rutherford.
- Q.9: What are two defects in Rutherford's Atomic Model?
- Q.10: Where does most of the mass of an atom exist? 1 Time
- Q.11: How nucleus was discovered by Rutherford? 1 Time



- Q.12: Write down the two postulates of Bohr's atomic model. 1 Time  
 Q.13: Describe difference between Rutherford's theory and Bohr's Atomic theory. 1 Time  
 Q.14: What is meant by Quantum? 4 Times  
 Q.15: What are the nucleons? 1 Time

### Electronic Configuration

- Q.16: Define electronic configuration. Also give example. 2 Times  
 Q.17: An element has 5 electrons in M shell. Find its atomic number. 4 Times  
 Q.18: How many maximum electrons can be present in K, L, M and N shall? 2 Times  
 Q.19: Write down the electronic configuration of following. i. Na ii. Al 2 Times  
 Q.20: Draw Electronic configuration of Mg with the help of Sub Shell. 3 Times  
 Q.21: Write electronic configuration of chlorine and carbon. 2 Times  
**Q.22: Write down the electronic configuration of nitrogen. Its atomic number is 7. 9 Times**  
 Q.23: Write down electronic configuration of aluminium according to shells and subshells. 5 Times  
**Q.24: Write electronic configuration of chloride ion  $Cl^-$ . 12 Times**  
**Q.25: Write atomic number and electronic configuration of phosphorous. 7 Times**  
 Q.26: The atomic number of an element is 17. How many electrons are present in K, L, and M shell? 2 Times  
 Q.27: Write down the electronic configuration of argon. 2 Times  
 Q.28: Write down the electronic configuration of silicon according the shells and subshells. 2 Times  
 Q.29: Write down the electronic configuration of carbon according to shells and subshells. 1 Time

### Isotopes

- Q.30: Define isotopes. Name the Isotopes of Hydrogen. 2 Times  
 Q.31: How mass number of same element are different? 2 Times  
 Q.32: Write down three isotopes of Uranium. 4 Times  
 Q.33: Describe the isotopes of chlorine with diagram. 2 Times  
 Q.34: Write two isotopes of uranium and chlorine. 1 Time  
 Q.35: How many neutrons are there in C-12 and C-13? 1 Time  
 Q.36: For what purpose C-14 is used? 1 Time  
 Q.37: How many protons and Neutrons are present in Deuterium. 1 Time  
 Q.38: How many Protons and Neutrons are present in Chlorine atom  ${}_{17}^{35}Cl$ . 1 Time



- Q.39: Write down uses of radioactive Isotopes as tracers for diagnosis and medicine. 2 Times
- Q.40: For what purpose is U-235 used? 15 Times
- Q.41: Define nuclear fission reaction. 10 Times
- OR How U-235 is broken by the bombardment of neutrons? Write down chemical reaction. 2 Times
- Q.42: Define carbon dating. 6 Times
- Q.43: Write two examples of radioactive Isotopes for the treatment of cancer. 5 Times

## Unit 3: Periodic Table and Periodicity of Properties

### Periodic Table

- Q.1: Explain Dobernien's triads. 13 Times
- Q.2: Define Mendeleev's periodic law. 15 Times
- Q.3: Define Moseley periodic law. 15 Times
- Q.4: What is meant by periodic functions? 4 Times
- Q.5: What are elements arranged in group 3 to 12 called? 2 Times
- Q.6: How many blocks are present in periodic table? 2 Times
- Q.7: Why elements are called s and p block elements? 3 Times
- Q.8: Write any two / four properties of the long form periodic table. 13 Times
- Q.9: What amendment was made by H. Moseley in Mendeleev's period table? 1 Time
- Q.10: Which are long periods? How many elements are present in long periods? 1 Time
- Q.11: Why the elements of group 13 to group 18 are called p block elements? 1 Time
- Q.12: Why the elements of group 1 and group 2 are called s block elements? 2 Times
- Q.13: What is meant by "blocks" in modern periodic table? 1 Time
- Q.14: Define periods and groups. 1 Time
- Q.15: Why atomic number is a more fundamental property than atomic mass? 1 Time
- Q.16: Name of the blocks in which elements are grouped in periodic table. 1 Time
- Q.17: How elements are arranged in periods? 1 Time



- Q.18: How many elements are present 5<sup>th</sup> and 6<sup>th</sup> period of modern periodic table. 1 Time
- Q.19: What are periods? Give an example. 5 Times
- Q.20: Write number and name of elements of 1<sup>st</sup> period of periodic table. 12 Times**
- Q.21: What is difference between short period and long period? 1 Time
- Q.22: Why Lanthanides and Actinides are placed separately below periodic table. Explain. 2 Times
- Q.23: How many elements are present in 4<sup>th</sup> and 6<sup>th</sup> period? 1 Time
- Q.24: Which periods are considered as normal periods. 1 Time
- Q.25: Write names of any four elements or symbols of seventeen group of periodic table. 2 Times
- Q.26: Write symbol of Noble gases. 1 Time
- Q.27: Name the elements of 1<sup>st</sup> group. 2 Times

### Periodic Properties

- Q.28: Define atomic radius. Also write atomic radius of carbon atom. 15 Times**
- Q.29: Why does atomic size increase in a group? 11 Time**
- Q.30: Why size of atom decreases from left to right in the periodic table? 15 Times**
- Q.31: Describe trend of Shielding effect in periodic table. 6 Times
- Q.32: Define effective nuclear charge. 5 Times
- Q.33: Define ionization energy and write its unit. 2 Times
- Q.34: What is the trend of ionization energy in the period and group? 10 Times**
- Q.35: What is first ionization energy? 2 Times
- Q.36: What is meant by electron affinity? 2 Times
- Q.37: Why electron affinity increases in a period? 1 Time
- Q.38: Write the trend of electro-negativity in period and group of the periodic table. 2 Times
- Q.39: Define electronegativity. Write electronegativity of Nitrogen, oxygen and Fluorine. 15 Times**
- Q.40: Describe the trend of electronegativity in period table. 2 Times
- Q.41: Give difference between electron affinity and electronegativity. 2 Times
- Q.42: What is the trend of electronegativity in group from top to bottom? 1 Time

## Unit 4: Structure of Molecules

### Why do Atoms React

- Q.1: Why noble gases are not reactive? 15 Times**



- Q.2: What is meant by octet rule? 15 Times  
 Q.3: What is the sign of stability of an atom? 15 Times  
 Q.4: How do elements attain stability? 1 Time

### Chemical Bond

- Q.5: Define chemical bond. Write down the names of its types. 1 Time

### Types of Bonds

- Q.6: Differentiate between Ionic bond and Covalent bond. 15 Times  
 Q.7: Why does group-I elements prefer to combine with group-17? 9 Times  
 Q.8: Why does sodium form a chemical bond with Chlorine? 1 Time  
 Q.9: Define double covalent bond and give example. 1 Time  
 Q.10: Define bonding electrons. 3 Times  
 Q.11: Define triple covalent bond and give example. 9 Times  
 Q.12: Draw Dot and Cross formula of Methane. 1 Time  
 Q.13: Define single covalent bond and give one example. 6 Times  
 Q.14: What is the difference between single covalent bond and double covalent bond? 2 Times  
 Q.15: Define the Coordinate covalent bond. 5 Times  
 Q.16: What is lone pair? How many lone pairs of electrons are present on nitrogen in ammonia? 2 Times  
 Q.17: Differentiate between donor atom and acceptor atom. 5 Times  
 Q.18: Why is  $\text{BF}_3$  electrons deficient? 1 Time  
 Q.19: Define non-polar covalent bond and give examples. 2 Times  
 Q.20: Define polar compounds and give one example. 2 Times  
 Q.21: Why is HF a weak acid? 5 Times  
 Q.22: Differentiate between polar covalent bond and non-polar covalent bond. 11 Times  
 Q.23: Why water has polar covalent bond? 3 Times  
 Q.24: What is the electronegativity of hydrogen and chlorine? 1 Time  
 Q.25: Give example of two polar compounds and give their chemical formula. 1 Time  
 Q.26: Write two properties of non-polar covalent compounds. 1 Time  
 Q.27: Why covalent bond in  $\text{H}_2$  is non-polar? 1 Time  
 Q.28: How to determine that bond is ionic or covalent on electronegativity base? 1 Time  
 Q.29: What is meant by Metallic bond? 9 Times



## Intermolecular Forces

- Q.30: Define Intermolecular force and give example.** 14 Times
- Q.31: What is meant by dipole dipole forces?** 5 Times
- Q.32: Define van der waals forces? What is their nature? 1 Time
- Q.33: Define hydrogen bonding and give example.** 5 Times
- Q.34: Why is the boiling point of water higher than Alcohol? 3 Times
- Q.35: How does hydrogen bonding affect physical properties of molecules? 2 Times

## Nature of Bonding and Properties

- Q.36: Write specific properties of Ionic Compounds.** 5 Times
- Q.37: Define ionic bond and ionic compounds. 1 Time
- Q.38: Why melting point and boiling point of ionic compounds are high? 4 Times
- Q.39: Write two properties of covalent compounds. 4 Times
- Q.40: Write any two properties of coordinate covalent compounds. 2 Times
- Q.41: Write down any two properties of metals. 5 Times
- Q.42: Why metal are good conductors of electricity?** 14 Times
- Q.43: What is meant by malleability? 3 Times

## Unit 5: Physical States of Matter

- Q.1: What is matter? How many states it has? 1 Time

### Typical Properties

- Q.2: Write two properties of gases. 3 Times
- Q.3: Why the rate of diffusion of gases is rapid than that of liquids? 4 Times
- Q.4: What is the difference between diffusion and effusion?** 9 Times
- Q.5: What do you mean by Pascal law? How many Pascal's are equal to 1 atm? 1 Time
- Q.6: Define standard Atmosphere pressure and write its unit.** 13 Times
- Q.7: Define pressure and write its units.** 11 Times
- Q.8: Why volume of a gas decreases with increase of pressure?** 10 Times
- Q.9: What is compressibility? 3 Times
- Q.10: Briefly describe the mobility of gases. 2 Times
- Q.11: Whether the density of gases increase on cooling? 5 Times

### Law Related to Gases

- Q.12: Define Boyle's law.** 17 Times
- Q.13: What is absolute temperature scale? 3 Times





Q.14: Is the Boyle's law applicable to liquids? Give reason.	1 Time
Q.15: What is Charles's law? Write its equation.	5 Times
Q.16: Convert to $-45^{\circ}\text{C}$ Kelvin temperature.	1 Time
Q.17: Convert $30^{\circ}\text{C}$ Kelvin temperature.	2 Times
Q.18: Convert $-30^{\circ}\text{C}$ to K unit.	1 Time
Q.19: Convert $750^{\circ}\text{C}$ Kelvin temperature (K).	2 Times
Q.20: Convert to 100 K to $^{\circ}\text{C}$ temperature.	1 Time

### Typical Properties

Q.21: Write two properties of liquid state of matter.	1 Time
Q.22: Why the liquid molecules are mobile?	3 Times
Q.23: What is meant by evaporation and condensation?	1 Time
Q.24: Why drops of rain fall downward?	3 Times
<b>Q.25: Why does evaporation increase with increase of temperature?</b>	<b>7 Times</b>
Q.26: What is the effect of surface area on evaporation?	5 Times
<b>Q.27: Why does evaporation cause cooling?</b>	<b>15 Times</b>
Q.28: Why is evaporation a continuous process?	2 Times
Q.29: How much energy is required when one mole of liquid water converts into vapour form? Write its equation.	1 Time
<b>Q.30: Define vapour pressure and explain the effect of temperature on it?</b>	<b>14 Times</b>
Q.31: What is the effect of Nature of liquid on vapour pressure?	5 Times
Q.32: Explain the process of condensation.	1 Time
Q.33: Differentiate between vapour pressure and condensation.	3 Times
Q.34: Why does vapour pressure become higher at high temperature?	5 Times
<b>Q.35: Define Boiling Point and Melting Point.</b>	<b>9 Times</b>
Q.36: Show the state of dynamic equilibrium in liquid and vapours with the help of diagram.	1 Time
Q.37: What is dynamic equilibrium.	2 Times
<b>Q.38: Define Freezing point.</b>	<b>9 Times</b>

### Typical Properties

<b>Q.39: Define melting point.</b>	<b>9 Times</b>
<b>Q.40: Why solids show rigidity?</b>	<b>7 Times</b>

### Types of Solids

<b>Q.41: Differentiate between crystalline and amorphous solid.</b>	<b>17 Times</b>
Q.42: Write the names of two allotropic forms of sulphur.	1 Time
<b>Q.43: Define transition temperature. Give example.</b>	<b>12 Times</b>
Q.44: How meat can be preserved?	3 Times



## Unit 6: Solutions

### Solutions

- Q.1: Define a solution and give an example? 3 Times
- Q.2: Write the simplest way to distinguish between solution and pure liquid. 4 Times
- Q.3: Why a solution is considered mixture? 3 Times
- Q.4: What is difference between solution and mixture? 2 Times
- Q.5: Differentiate between dilute and concentrated solution. 3 Times
- Q.6: Define aqueous solution. Give examples. 20 Times**
- Q.7: Write formulas of two ionic compounds which are soluble in water. 1 Time
- Q.8: What is difference between solution and aqueous solution? 5 Times
- Q.9: What is difference between solute and solvent? 2 Times

### Saturated Solution

- Q.10: Write difference between Saturated Solution and Unsaturated Solution. 15 Times**
- Q.11: How super saturated solution is prepared? 1 Time
- Q.12: How is dilution of a solution proceeded? 1 Time
- Q.13: Describe difference between concentrated Solution and Dilute solution. 15 Times**

### Types of Solution

- Q.14: What is Solid-Solid solution? Give two examples. 5 Times
- Q.15: What type of solution fog and brass are 2 Times
- Q.16: What type of solutions butter and smoke are? 1 Time
- Q.17: Give two examples of gas in liquid solution. 1 Time
- Q.18: Write two examples of gas into gas solution. 1 Time
- Q.19: Write the name of two non-polar solvents. 1 Time

### Concentration Unit

- Q.20: Which solution is more concentrated? One molar or three molar? 6 Times
- Q.21: What is meant by mass/mass percentage (m/m%)? 2 Times
- Q.22: What is meant by percentage mass/volume (m/v) %? 6 Times
- Q.23: Explain percentage volume/mass (v/m) % with example. 8 Times**
- Q.24: If we add 5cm<sup>3</sup> of acetone in water to prepare 90cm<sup>3</sup> of aqueous solution. Calculate the concentration (%v/v) of this solution. 2 Times
- Q.25: Define Molarity and write its equation. 25 Times**



- Q.26: How one molar solution of NaOH is prepared? 2 Times  
 Q.27: Define molar solution and give an example. 1 Time

### Solubility

- Q.28: Define solubility.** 17 Times  
 Q.29: Why benzene is insoluble in water? 1 Time  
 Q.30: Why is naphthalene soluble in carbon tetrachloride and not in water? 1 Time  
 Q.31: Write the names of factors that effect solubility. 2 Times  
 Q.32: Write down names of any two factors that effect the solubility of solutes. 1 Time  
 Q.33: Why is iodine soluble in  $\text{CCl}_4$  and not in water. 1 Time  
 Q.34: Describe endothermic reaction with example. 1 Time  
 Q.35: Why test tube becomes cold when  $\text{KNO}_3$  is dissolved in water? 5 Times  
 Q.36: Why test tube becomes warm when  $\text{Li}_2\text{SO}_4$  is dissolved in water? 1 Time  
 Q.37: Describe the effect of Temperature on Solubility. 1 Time

### Comparison of Solution, Suspension and Colloid

- Q.38: Define solution and colloids. 2 Times  
 Q.39: Identify as colloids and suspensions: paints, jelly, Soap solution, Milk, Milk of magnesia, chalk in water. 2 Times  
 Q.40: What is difference between colloid and suspension? 5 Times  
 Q.41: Describe difference between true solution and colloids. 3 Times  
 Q.42: What is Tyndall effect? On what factors it depends? 2 Times  
 Q.43: Why does true solutions not show Tyndall effects? 3 Times  
 Q.44: How can you justify that blood is a colloid? 1 Time  
**Q.45: Why do suspensions not form the homogeneous mixture?** 10 Times

## Unit 7: Electrochemistry

- Q.1: Define electrochemistry.** 8 Times  
**Q.2: What are spontaneous and non spontaneous reaction? Differentiate them.** 11 Times

### Oxidation and Reduction

- Q.3: What is the difference between oxidation and reduction reaction?** 24 Times  
 Q.4: Define oxidation in terms of oxygen with an example. 1 Time  
 Q.5: Define reduction in terms of gain of electrons. Give an example. 2 Times

## Oxidation State and Rules for Assigning Oxidation State

- Q.6: Write any two rules for assigning oxidation number? 2 Times
- Q.7: Calculate the oxidation number of chlorine in  $\text{KClO}_3$ . 11 Times
- Q.8: Calculate the oxidation number of Sulphur (S) in  $\text{H}_2\text{SO}_4$ . 10 Times
- Q.9: Calculate the oxidation number of Nitrogen in  $\text{HNO}_3$ .
- Q.10: Find oxidation number of nitrogen in  $\text{HNO}^3$  when the oxidation number of H = +1 and O = -2. 4 Times
- Q.11: What is oxidation number? Give an example. 2 Times
- Q.12: Find out oxidation number of  $\text{HNO}_2$ . 1 Time
- Q.13: Find oxidation number of Mn in  $\text{KMnO}_4$  as oxidation number of K = +1 and O = -2. 1 Time

## Oxidation, Reduction Reaction

- Q.14: Define Redox Reaction. Give an example. 2 Times

## Electrochemical Cell

- Q.15: Define electrochemical cell. While the names of its types. 19 Times
- Q.16: Define electrolytes and electrochemical cell. 1 Time
- Q.17: Define Electrolyte. Give an example. 9 Times
- Q.18: Identify a strong and weak electrolyte among the following compounds. 1 Time
- Q.19: What are non-electrolytes? Give one example. 13 Times
- Q.20: What are weak-electrolytes? Give two examples. 11 Times
- Q.21: What are electrolytes and non-electrolytes? 2 Times
- Q.22: Give justification about NaOH solution, Why is it strong electrolyte? 1 Time
- Q.23: What do you know about the construction of an electrolytic cell? 2 Times
- Q.24: Write down two examples of Electrolytic Cells. 7 Times
- Q.25: What are anode and cathode? 9 Times
- Q.26: Define Electrolysis and give example. 10 Times
- Q.27: Which force drives the non-spontaneous reaction to take place? 1 Time
- Q.28: Write down the reaction occurring on cathode and anode during the electrolysis of water. 1 Time
- Q.29: What is Galvanic cell? Give an example. 7 Times
- Q.30: Write difference between Electrolytic Cell and Galvanic cell. 8 Times
- Q.31: How the half cell of galvanic cell are connected? What is function of salt bridge? 12 Times



- Q.32: Write the half cell reactions occurring on cathode and anode in Daniel cell. 2 Times

### Electrochemical Industries

- Q.33: How sodium metal is obtained from fused sodium chloride? 1 Time  
 Q.34: Define Brine. 3 Times

### Corrosion and its Prevention

- Q.35: Define corrosion and also give example. 14 Times  
 Q.36: What does means rusting of Iron? Write its important condition. 6 Times  
 Q.37: What is difference between corrosion and Rusting? 8 Times  
 Q.38: Why does aluminium not rust? Explain 2 Times  
 Q.39: Write two methods for prevention of corrosion. 2 Times  
 Q.40: What is tin coating? Write its advantage. 2 Times  
 Q.41: Define Alloy and give example. 7 Times  
 Q.42: How iron is prevented from Rust by tin coating? 2 Times  
 Q.43: What is meant by electroplating? 18 Times  
 Q.44: How electroplating of zinc is carried out? 6 Times  
 Q.45: What is the principle of electroplating? 2 Times  
 Q.46: How galvanizing of iron sheets is done? 1 Time  
 Q.47: Write the chemical reaction of electroplating of silver. 1 Time

## Unit 8: Chemical Reactivity

### Metals

- Q.1: Define metal and give two examples. 3 Times  
 Q.2: Write down two / four important chemical properties of metals. 12 Times  
 Q.3: Write any two uses of Sodium. 15 Times  
 Q.4: What is meant by malleable and ductile metals? 6 Times  
 Q.5: Which metals are the most malleable and ductile? 4 Times  
 Q.6: Complete and balance the given chemical reaction. 1 Time  
 Q.7: Write chemical reaction of Sodium with Oxygen. 1 Time  
 Q.8: Write uses of Magnesium. 13 Times  
 Q.9: Why sodium metal is more reactive than magnesium? 4 Times  
 Q.10: Write down names of two / four very Reactive metals. 5 Times  
 Q.11: Write down the names of any two moderate reactive metals. 6 Times  
 Q.12: What is the colour of flame when sodium and calcium burn in air? 1 Time  
 Q.13: Write down the reaction of Magnesium with Oxygen. 2 Times



- Q.14: Which is most precious metal? 2 Times
- Q.15: Compare two physical properties of metals and non-metals.** 15 Times
- Q.16: Name the metal which is least conductor of heat? 1 Time
- Q.17: Write names of any two/four noble metals. 3 Times
- Q.18: What are metalloids? Give two examples. 1 Time
- Q.19: Write down melting point and boiling point of Sodium Metal. 1 Time
- Q.20: Write two uses of calcium.** 15 Times
- Q.21: Define Metallic Character. 7 Times
- Q.22: What is Electropositivity? Explain with example.** 14 Times
- Q.23: Give the trend of electropositivity in a group and a period. 3 Times
- Q.24: Compare alkali and alkaline earth metals.** 6 Times
- Q.25: How will you compare the electropositivity of alkali Metals and alkaline earth metals? 2 Times
- Q.26: What do you mean by 24 carat gold? 5 Times
- Q.27: Why alkali metals are extremely reactive? 2 Times
- Q.28: Write down the occurrence of alkali metals and alkaline earth metals. 1 Time
- Q.29: Give the reaction of magnesium with  $O_2$  and  $N_2$ . 1 Time
- Q.30: Complete the following chemical equations. i.  $Ca + H_2 \rightarrow$ , ii.  $Ca + Cl_2 \rightarrow$  1 Time
- Q.31: What are transition metals? Give an example. 5 Times
- Q.32: Write the reaction of chlorine with hot conc NaOH. 1 Time
- Q.33: Why alkali metals are more reactive than alkaline earth metals? 2 Times
- Q.34: How does Oxygen react with elements of Group-1 metals? 1 Time
- Q.35: How does Oxygen react with elements of Group-2 metals? 1 Time
- Q.36: Write down chemical reaction of Mg with  $O_2$  and  $N_2$ . 1 Time
- Q.37: What is the nature of metal oxide? 1 Time
- Q.38: Write down two uses of Gold.** 8 Times
- Q.39: Write two properties silver. 2 Times
- Q.40: Write two properties of platinum. 2 Times
- Q.41: Why platinum is used for making jewellery? 5 Times
- Q.42: How is platinum used as a catalyst in automobiles? Give its advantages. 1 Time
- Q.43: Write the names of noble metals. 1 Time

### Non Metals

- Q.44: Write two physical properties of non metals.** 12 Times
- Q.45: Write any two chemical properties of non-metals.** 12 Times



- Q.46: Write down two significances of non-metals. 2 Times
- Q.47: Which factors affect the non-metallic character? 2 Times
- Q.48: Describe the non-metallic character in groups and period of a periodic table. 4 Times
- Q.49: Define Halogens. Give example. 3 Times
- Q.50: Write down names of any four halogens. 15 Times
- Q.51: Why does Bromine exist in liquid state in Halogen group? 1 Time
- Q.52: Write reaction of chlorine with hydrogen and water. 1 Time
- Q.53: Give chemical reaction between methane ( $\text{CH}_4$ ) and chlorine ( $\text{Cl}_2$ ) in presence of diffused light. 3 Times
- Q.54: Give chemical reaction of methane with chlorine in bright light. 2 Times
- Q.55: How chlorine chemically react with dilute NaCl. 1 Time
- Q.56: Why Nitrogen is necessary for safety of life on earth? 1 Time
- Q.57: In what conditions  $\text{H}_2$  reacts with  $\text{I}_2$ ? Give equation of the reaction. 2 Times
- Q.58: Write the chemical reaction of water with bromine. 2 Times
- Q.59: Give chemical reaction of  $\text{H}_2$  with  $\text{Cl}_2$  and  $\text{I}_2$ . 1 Time
- Q.60: What is the significance of water for survival of life? 1 Time
- Q.61: What is importance of oxygen and carbon dioxide for plants and animals? 2 Times
- Q.62: Write down chemical reaction of sodium with  $\text{H}_2$  and  $\text{Cl}_2$ . 1 Time
- Q.63: Write down the chemical reactions of chlorine with hot and cold aqueous solutions of sodium hydroxide. 2 Times
- Q.64: Write chemical reaction of  $\text{H}_2$  with  $\text{F}_2$  and  $\text{Cl}_2$ . 1 Time
- Q.65: Give the reaction of chlorine with cold dilute NaOH solution. 2 Times
- Q.66: Write the reaction of chlorine with methane in the presence of bright sunlight. 2 Times
- Q.67: Write chemical reaction of hydrogen with any one halogen. 1 Time
- Q.68: Write chemical reaction of halogens with water. 2 Times

# Online Learning Program

Launched by

## *Unique Group of Institutions*

- Most important Topics for Paper point of view
- Lecture delivered by Experienced Subject Experts
- Guideline for Teachers to deliver a Lecture



- ▶ **Lecture 1** Ionization Energy
- ▶ **Lecture 2** How to write chemical formula?
- ▶ **Lecture 3** Blocks in periodic table
- ▶ **Lecture 4** Corrosion
- ▶ **Lecture 5** Oxidation, Reduction, Redox Reaction
- ▶ **Lecture 6** Compound
- ▶ **Lecture 7** Evaporation
- ▶ **Lecture 8** Ionic Bond
- ▶ **Lecture 9** Electronic configuration
- ▶ **Lecture 10** Hydrogen bonding

**This booklet is complementary & Free for all our students**

**For Free Home Delivery Call**

**0324-6666661, 0324-6666662, 0324-6666663**