



# **BRAIN INTERNATIONAL SCHOOL**

**SESSION 2024-25**

**CLASS: X**

**TERM 1 REVISION SHEET**

**SUBJECT: CHEMISTRY**

## **Chapter 1: Chemical Reactions and Equations**

### **1. Multiple choice questions:**

- i. Which of the following is a NECESSARY condition for ALL chemical reactions ?
  - (a) The reactants should be in the same state.
  - (b) Energy should be supplied to the reactants.
  - (c) The reactants should be at the same temperature.
  - (d) There should be physical contact between the reactants.
- ii. What is observed when a solution of potassium iodide is added to silver nitrate solution ?
  - (a) No reaction takes place.
  - (b) White precipitate of silver iodide is formed.
  - (c) Yellow precipitate of AgI is formed.
  - (d) AgI is soluble in water.

### **2. Assertion-Reason question:**

**Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below**

- (i) **Both A and R are true and R is correct explanation of the assertion.**
- (ii) **Both A and R are true but R is not the correct explanation of the assertion.**
- (iii) **A is true but R is false.**
- (iv) **A is false but R is true.**

(a) Assertion: White silver chloride turns grey in sunlight.

Reason: Copper reacts with zinc sulphate to form copper sulphate and zinc is deposited.

### **3. Read the passage and answer the questions that follow:**

Corrosion is the phenomenon of deterioration of surface of metal in presence of air and moisture. It is a natural process and in the presence of a moist atmosphere, chemically active metals get corroded. This is an oxidation reaction. Rusting is the process where iron corrodes due to exposure to the atmosphere. The main circumstance of corrosion occurs with iron because it is a structural material in construction, bridges, buildings, rail transport, ships, etc. Aluminium is also an important structural metal, but even aluminium undergoes oxidation reactions. However, aluminium doesn't corrode or oxidize as rapidly as its reactivity suggests. Copper (Cu) corrodes and forms a basic green carbonate.

1. What type of reaction is corrosion ? Explain.
2. Name the methods used for the prevention of corrosion.
3. Write the conditions responsible for the rusting of iron .

#### 4. Answer the following questions :

1. Reeta mixes an aqueous solution of sodium sulphate and an aqueous solution of copper chloride. Will this lead to double displacement reaction ? Justify your answer.
2. A compound 'A' is used in the manufacture of cement .When dissolved in water, it evolves a large amount of heat and forms compound 'B'.
  - (i) Identify A and B .
  - (ii) Write chemical equation for the reaction of A with water.
  - (iii) List two types of reaction in which this reaction may be classified.
3. When hydrogen sulphide gas is passed through a blue solution of copper sulphate, the colour of the solution fades away and a black precipitate is obtained .
  - (i) Name the type of reaction mentioned above.
  - (ii) Why does the colour of the solution fade away ?
  - (iii) Write the chemical name of the black precipitate formed.
  - (iv) Give the balanced chemical equation for the reaction involved .

### Chapter 2: Acids, Bases and Salts

#### 1. Multiple choice questions:

- i. Which of the following salts has no water of crystallization?  
(a) Blue vitriol      (b) Washing soda      (c) Baking soda      (d) Gypsum
- ii. The formula of baking soda is  
(a)  $K_2CO_3$       (b)  $KHCO_3$       (c)  $NaHCO_3$       (d)  $Na_2CO_3$

#### 2. Assertion-Reason question:

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

(a) Assertion: Antacids are used to get rid of pain caused by indigestion.

Reason: Antacids neutralize the excess acid produced in the stomach.

3. Question nos. (a) to (d) are based on the two tables given below. Study this table and answer the questions that follow:

S. No.	Salt	Base	Acid	pH
1.	Na <sub>2</sub> SO <sub>4</sub>	NaOH	H <sub>2</sub> SO <sub>4</sub>	=7
2.	NH <sub>4</sub> Cl	NH <sub>4</sub> OH	HCl	<7
3.	KNO <sub>3</sub>	KOH	HNO <sub>3</sub>	=7
4.	NaCl	NaOH	HCl	=7

- (a) Why is the pH of ammonium chloride less than 7?
- (b) What is the nature of ammonium sulphate solution?
- (c) Sodium hydrogen carbonate gives brisk effervescence when reacts with
- (i) HCl      (ii) NH<sub>4</sub>Cl      (iii) NaOH      (iv) K<sub>2</sub>CO<sub>3</sub>
- (d) Which species formed on heating sodium hydrogen carbonate is used to make bread and cakes fluffy, soft and spongy?
- (i) Na<sub>2</sub>CO<sub>3</sub>      (ii) CO<sub>2</sub>      (iii) H<sub>2</sub>O      (iv) H<sub>2</sub>CO<sub>3</sub>

4. Answer the following questions:

1. What happens when nitric acid is added to an egg shell ?
2. Sodium hydrogen carbonate is a basic salt .Justify this statement. How is it converted into washing soda ?
3. Write chemical name and chemical formula of Plaster of Paris .How it is prepared ? Write three uses of it.
4. Explain the formation of (i) acidic (ii) basic (iii) neutral salts.