Brain International School
Vikas Puri, New Delhi

REVISION SHEET

SUBJECT: CHEMISTRY CLASS-X TERM 1

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 forme
(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.

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 :

a. 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.
b. 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.

c. 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 one of the following has no water of crystallization:
(a) Blue Vitriol (b) Washing Soda (c) Baking Soda (d) Gypsum

ii. The pH of the gastric juices released during digestion is:
(a) less than 7 (b) more than 7 (c) equal to 7 (d) equal to 0

iii. Toothpastes are :
(i) Alkaline (ii) acidic (iii) neutral (iv)only rubbing material

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.

Assertion: Antacids are used to get rid of pain caused by indigestion.
Reason: Antacids neutralize the excess acid produced in the stomach.

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

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_2SO_4	NaOH	H_2SO_4	=7
2.	NH_4Cl	NH_4OH	HCl	<7
3.	KNO_3	KOH	HNO_3	=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_4Cl (iii) NaOH (iv) K_2CO_3
(d) Which species formed on heating sodium hydrogen carbonate is used to make bread and cakes fluffy, soft and spongy?
(i) Na_2CO_3 (ii) CO_2 (iii) H_2O (iv) H_2CO_3

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.

Chapter 3: Metals and Non-metals

1. **Multiple choice questions** :

i. Silver articles become black on prolonged exposure to air .This is due to the formation of :

(a) Ag_3N (b)Ag_2O (c)Ag_2S (d) Ag_2S and Ag_3N

ii. In which of the following the identity of initial substance remains unchanged?

(a) Curdling of milk (b)Formation of crystals by process of crystallization

(c)Fermentation of grapes (d) Digestion of food

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.

(v) A is true but R is false.

(vi) A is false but R is true.

Assertion : Aluminum oxide is an amphoteric oxide.

Reason **:** Amphoteric oxides are those which react with acids as well as bases

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

Atoms combined together either by transference of valence electrons from one atom to the other or by sharing of electrons between two atoms. The compounds formed in the former case are ionic compounds ,while compounds formed in the latter case are called covalent compounds. Most of the properties of covalent compounds are just the opposite of the ionic compounds. For example, ionic compounds are soluble in water but insoluble in organic solvents like benzene, ether etc.while it is just the opposite in case of covalent compounds .

i. How do metals and nonmetals combine ?

ii. Number of electrons lost or gained by the atom of an element is called its _____.

iii. Which metal is more metallic- sodium or aluminum and why ?

4.Answer the following questions:

1.What are alloys ? When are the alloys called amalgams ? Give two examples of alloys containing copper as one of the constituents.

2.The atomic number of an element is 12.

(a) Write its electronic configuration and determine its valency.

(b) Is it more reactive or less reactive than Ca(At no.20)? Justify your answer giving reason.

(c) Is it metal or a non-metal ?

(d) Write the formula of its oxide.

3.Why oxides of very reactive metals cannot be reduced with carbon ? How these metals are obtained from their ores ?

4. What is activity series of metals ? Arrange the metals Zn, Mg, Al, Cu, Fe in decreasing order of reactivity.