

Chemistry: Assignment (Class-X)

ACID, BASES AND SALTS - ASSIGNMENT

- i. Name the gas formed when sodium hydroxide reacts with zinc.
- ii. Write the chemical name of baking soda.
- iii. What happens when gypsum is heated at 373K?
- iv. Which has a higher pH value 1M HCl or 1M NaOH solution?
- v. Hydrogen ion concentration of an acid is 1×10^{-2} mol/l. what is its pH?
- vi. What is meant by 'Water of Crystallisation' of a substance? Describe an activity to show that.
- vii. Why does tooth decay start when the mouth is lower than 5.5?
- viii. What is baking powder? How does it make the cake soft and spongy?
- ix. Give Arrhenius definition of an acid and a base. Choose strong acid and strong base from the following:

CH₃COOH, NH₄OH, KOH, HCl

- x. What happens when nitric acid is added to egg shell? Give the chemical equation.
- xi. A student prepared solutions of an acid and a base in two separate beakers. She forgot to label the solutions and litmus paper is not available in the laboratory. Since both the solutions are colourless, how will she distinguish between the two?
- xii. Identify the compound 'X' on the basis of the reactions given below. Write the names and chemical formulae of A, B, C.

CHEMICAL REACTIONS AND EQUATIONS

1. Give 5 examples each of physical and chemical changes that take place around us in our day to day life.
2. When a magnesium ribbon is burnt in air, what are the two observations that you make?
3. Write a balanced chemical equation to represent decomposition of lead nitrate on heating. What are brown fumes due to?
4. Make a list of at least 10 cations and 10 anions.
5. Taking help from the list prepared in Q4., write the chemical formulae of:-
 - (i) Barium chloride
 - (ii) Sodium Sulphate
 - (iii) Ammonium phosphate
 - (iv) Calcium hydroxide
 - (v) Aluminium carbonate
 - (vi) Magnesium hydrogen carbonate
 - (vii) Zinc sulphide
 - (viii) copper (I) chloride
 - (ix) Potassium Bromide
 - (x) Lead nitrate
 - (xi) Iron (III)

oxide (xii) Sodium Oxide (xiii) Silver sulphide (xiv) Calcium Fluoride

6. Write the following in the form of balanced chemical equations:-

- (a) Calcium carbonate decomposes on heating to form calcium oxide and carbon – di – oxide.
- (b) When ammonium hydroxide is added to a solution of iron (II) Sulphate, a green ppt of iron (II) hydroxide and ammonium Sulphate are formed.
- (c) When a nail of iron is added to a solution of copper Sulphate, iron (II) Sulphate and copper metal are formed.
- (d) Zinc reacts with dil hydrochloric acid to form zinc chloride and hydrogen gas is liberated.

7. A chemical reaction which is both combination as well as exothermic, is used by us for white washing purposes. Write the equation for the same.

8. What is a decomposition reaction? Give 2 examples each of decomposition taking place due to heat, light and electricity.

9. How does a displacement reaction differ from a double displacement reaction? Give examples to explain.

10. What will happen chemically when you heat-1. ferrous sulphate, 2. lead nitrate 3. calcium carbonate 4 copper sulphate

B. Complete all the exemplar question of ch.2.

C. Prepare a mind map on a chart paper/ flex neatly drawn and well written as per your roll no. Even nos.-chemical reaction ,odd nos.-Acid bases & salt

D Complete your chemistry practical files with all the 5 experiments written properly, performed in lab.

LEADERS FOR LIFE