

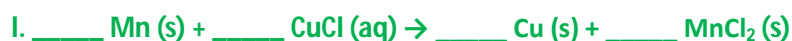
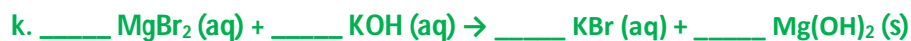
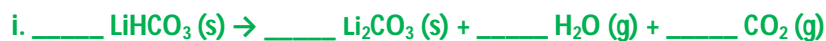
**CLASS X CHEMISTRY ASSIGNMENT**  
**CHEMICAL REACTIONS AND EQUATIONS**

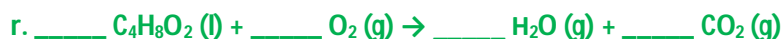
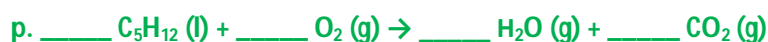
Q1 Define:

- **Reactants**
- **Products**
- **Balanced chemical equation.**

Q2 Balance the following chemical equation and identify the reactants and products.

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Q2 Write the skeleton equation for each of the following reactions. Then balance each of the following chemical equations.

1. hydrogen + oxygen  $\rightarrow$  water

2. iron(III) oxide + hydrogen  $\rightarrow$  water + iron

3. sodium + water  $\rightarrow$  sodium hydroxide + hydrogen

4. copper + Oxygen  $\rightarrow$  Copper(II) Oxide

5. potassium iodide + chlorine  $\rightarrow$  potassium chloride + iodine

6. chromium + tin(IV) chloride  $\rightarrow$  chromium(III) chloride + tin

7. magnesium + copper(II) sulphate  $\rightarrow$  magnesium sulphate + copper

8. zinc sulphate + strontium chloride  $\rightarrow$  zinc chloride + strontium sulphate

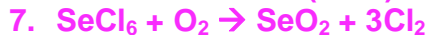
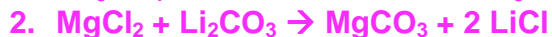
9. ammonium chloride + lead(III) nitrate  $\rightarrow$  ammonium nitrate + lead(III) chloride

10. iron(III) nitrate + magnesium sulphide  $\rightarrow$  iron(III) sulphide + magnesium nitrate

11. aluminum chloride + sodium carbonate  $\rightarrow$  aluminum carbonate + sodium chloride

12 sodium phosphate + calcium hydroxide  $\rightarrow$  sodium hydroxide + calcium phosphate

Q3 Indicate which type of chemical reaction (Combination, decomposition, single-displacement, double-displacement or combustion) is being represented in the following reactions:

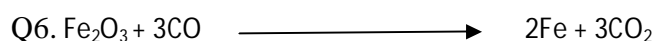
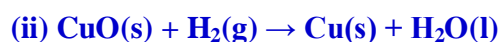


Q4 Differentiate between:

➤ **Combination and Decomposition reaction.**

- **Displacement and Double displacement reaction.**
- **Oxidation and Reduction reaction.**
- **Balanced and unbalanced chemical equation.**
- **Corrosion of iron and Copper.**

Q5 Identify the substances that are oxidized and the substances that are reduced in the following reactions.



**Study the above reaction and name the following:**

- **Substance getting reduced**
- **Substance getting oxidized**
- **Oxidizing agent**
- **Reducing agent.**

Q7. Give reasons for the following:

- **Silver Nitrate solution cannot be stored in Copper containers.**
- **Gold and Silver do not corrode in air**
- **Blue colour of copper sulphate solution starts fading when a zinc rod is dipped in it.**
- **Respiration is an endothermic reaction.**
- **Photo chemical decomposition reaction finds application in photography.**

Q8. why does stale food gives a bad smell and bad taste? How can this be prevented?

Q9. For each of the following experiments, decide whether a reaction will occur. If you think there will be no reaction, write down why you think this.

**If you think a reaction will happen:**

**write down why you think it will happen, what you expect to see, and the word equation to go with it.**

- a) **iron heated with copper(II) oxide**
- b) **aluminium heated with iron oxide**
- c) **copper heated with iron oxide**
- d) **magnesium heated with zinc oxide**

Q10. Give examples for the following:

- **Precipitation reaction.**
- **Thermal decomposition.**

- Natural oxidation.
- Exothermic reaction.