



Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO. 1

SUBJECT: CHEMISTRY

CLASS-X

APRIL'2025

Chapter-1: Chemical Reactions and Equations

Answer the following questions :

1. A student wants to study a decomposition reaction by taking ferrous sulphate crystals. Write two precautions he must observe while performing the experiment.
2. Give one example of a combination reaction and one example of a decomposition reaction .
3. Give an example of a double displacement reaction accompanied by the evolution of a gas.
4. Why is respiration considered an exothermic process?
5. When an iron rod is kept dipped in a copper sulphate solution for some time, a brown coating is formed on the iron rod. Explain why. What change will you observe in the color of the solution?
6. A shining metal M on burning gives a dazzling white flame and changes to a white powder N.
(a) Identify M and N.
(b) Represent the above reaction in the form of a balanced chemical equation .
7. (a) Define a double displacement reaction .
(c) Write the chemical equation of a double displacement reaction which is also a
(i) neutralization reaction and (ii) precipitation reaction . Give justification for your answer.
8. Mention with reason the colour changes observed when :
(i) silver chloride is exposed to sunlight .
(ii) copper powder is strongly heated in the presence of oxygen .
(iii) a piece of zinc is dropped in a copper sulphate solution
9. In the electrolysis of water :
(i) Name the gas liberated at anode and cathode .
(ii) Why is it that the volume of gas collected on one electrode is two times that on the other electrode ?
(iii) What would happen if dil. H_2SO_4 is not added to water ?
10. Can a displacement reaction be a redox reaction ? Explain with the help of an example.