

# Science

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(Chapter - 1) (Chemical Reactions and Equations) (Practice Test 4 Answers)

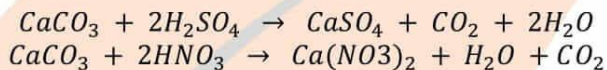
(Class X)

Section - A

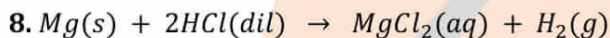
- (d) Arrow is pointed towards reactants.
- (b)  $MgO$ .
- (d) Reactant.
- (a)  $Ca(OH)_2$

Section - B

- Displacement reaction because  $Cl_2$  is displacing  $I_2$  from  $KI$  solution.
  - Combination reaction because  $K$  reacts with  $Cl_2$  to form potassium chloride.
- Taj is made up of  $CaCO_3$  which reacts with acid formed by pollution of  $SO_2(g)$  and  $NO_2$  from Mathura refinery and other industries.

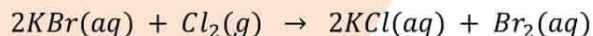


- Redox reaction is a reaction in which oxidation and reduction takes place simultaneously.
  - $HCl$  is the substance oxidized,  $MnO_2$  is the substance getting reduced.
  - $H_2$  is getting oxidized,  $CuO$  is getting reduced.



Magnesium chloride and hydrogen gas are formed in this reaction. It is a displacement reaction.

**9. Displacement reaction:** A reaction in which a more reactive element displaces a less reactive element from its salt solution e.g.,



**Double displacement reaction:** A reaction in which two compounds exchange their ions to form two new compounds e.g.,

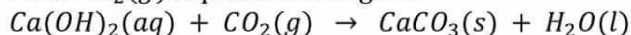


Section - C

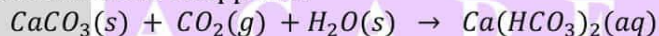
- Change in state:  
 $AgNO_3(aq) + HCl(aq) \rightarrow AgCl(s) + HNO_3(aq)$
  - Evolution of gas:  
 $CaCO_3(s) + 2HCl(dil) \rightarrow CaCl_2(aq) + H_2O(l) + CO_2(g)$
  - Change in temperature:  
 $CH_4(g) + 2O_2(g) \rightarrow CO_2(g) + 2H_2O(l) + Heat$

- (a) The container becomes hot and hissing sound is produced.
  - (b)  $Ca(OH)_2$  is the formula of the product formed.

(ii) (a) Lime water turn milky when  $CO_2(g)$  is passed through it:



(b) If excess of  $CO_2$  is passed milkiness disappears:



- $Zn(s) + 2NaOH \rightarrow Na_2ZnO_2 + H_2$
  - $Ca(OH)_2 + 2CO_2 \rightarrow Ca(CHO_3)_2$
  - $Na_2CO_3 + H_2SO_4 \rightarrow Na_2SO_4 + H_2O + CO_2$
  - $CaCO_3(s) + 2HCl(dil) \rightarrow CaCl_2 + H_2O + CO_2$
  - $CuO(s) + 2HCl \rightarrow CuCl_2 + H_2O$

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