

C. Short Question answers

1A Galvanization: a process in which iron is prevented from rusting by deposition of zinc over iron.

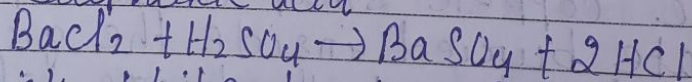
2A Two examples of chemical reactions in which change of state occurs.

(a) Candle wax is characterized by a change in state from solid to liquid and gas.

(b) Ammonia gas reacts with Hydrogen gas to produce solid Ammonium chloride.

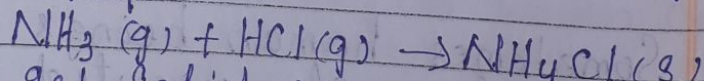
3(a) Zinc is added to dilute hydrochloric acid $\Rightarrow \text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2 \uparrow$
colourless and odourless gas evolved

(b) Barium chloride solution is added with Sulphuric acid



Thick white barium Sulphate we get

(c) Ammonia and hydrogen chloride gases are reacted

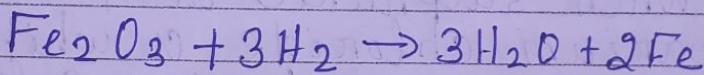


we get solid ammonium chloride.

(d) Blue crystals of copper sulphate are heated strongly we get blue shiny crystals of copper sulphate.

4A In Double Displacement Reaction two compounds react to exchange their elements or reactive groups.
Ex $\rightarrow \text{CuCl}_2 + \text{Na}_2\text{CO}_3 \rightarrow \text{CuCO}_3 + 2\text{NaCl}$
Copper chloride reacts with silver nitrate solution to form magnesium nitrate silver chloride.

5A The substance which provide hydrogen to the other substances or remove oxygen from the other substances



Hydrogen is the reducing agent by removal of oxygen from iron oxide.

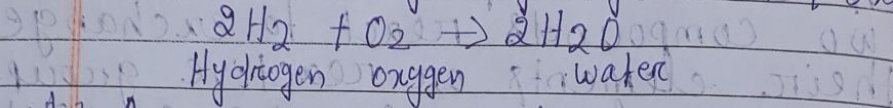
6A A crystallisation is the process of formation of solid crystals from solution, melt or by deposition directly from a gas phase.

D Long Question answers

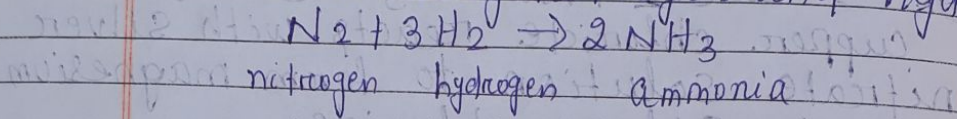
1A The characteristics of a Physical Change are

- (i) Some of the physical changes are reversible
- (ii) A change in the state
- (iii) Change in colour, shape, size
- (iv) Some changes are irreversible.

2A(a) Water using hydrogen and oxygen



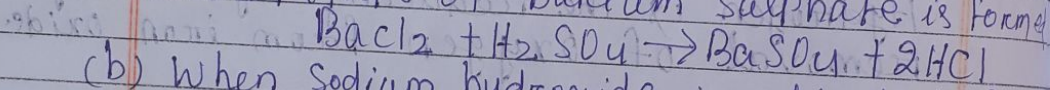
(b) Ammonia using nitrogen and hydrogen



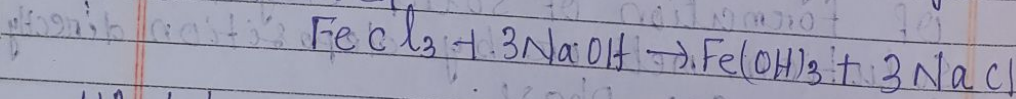
(c) Magnesium oxide using magnesium

3A Two examples of Precipitation reactions

(a) When Sulphuric acid is reacted with barium chloride a white insoluble precipitate of barium sulphate is formed



(b) When sodium hydroxide is added to ferric chloride, reddish-brown iron hydroxide is formed



4A When a candle burns, both physical and chemical changes occur.

(i) Physical change: - melting of wax, vapourisation of melted wax.

(ii) Chemical change: - Burning of vapours of wax to give carbon dioxide, heat and light.

5A A single substance also called an element is a kind of chemical substance that cannot be broken down into simpler substances by any physical or chemical means.

6A Two types of mixtures are (i) Evaporation of a liquid from a solution (ii) Crystallisation of a solid from a solution

(ii) Crystallisation of a solid from a solution

and oxygen

and hydrogen.

g magnesium

precipitation reactions
is reacted with
white insoluble
sulphate is formed
 $BaSO_4 + 2HCl$

is added to ferric
iron hydroxide
 $Fe(OH)_3 + 3NaCl$

both physical
occur.

ing of wax,

of wax.

ing of vapours
dioxide, heat

5A A single displacement reaction which is also called as single replacement reaction is a kind of oxidation-reduction chemical reaction when an element moves out of a compound that means one element is replaced by the other in a compound.

6A Two methods of separation of a solid from the solution.

(i) Evaporation — The process of obtaining a non volatile soluble solid from its solution by allowing the liquid component to vaporize is called evaporation

(ii) Crystallization — The process of cooling a hot, concentrated solution of a substance to obtain crystals is called crystallization