CHEMISTRY

CLASS VIII

CHEMICAL REACTIONS

Short – answer questions

Q1. What are the following called?

a) **Action in which heat or light is evolved** – exothermic reaction
b) **Add reaction in which heat or light is absorbed-** endothermic reaction
c) **Type of reaction in which two or more substances add up to form new product –** combination reaction
d) **Type of reaction in which a substance is broken down into simpler substance –** decomposition reaction
e) **The type of reaction in which an element displaces another -** displacement reaction.

Q2. Define double displacement reaction.

Ans. A reaction in which positive and negative radicals of two reactant are exchanged, leading to the precipitation of product is called double displacement .

Q3. What happened in a neutralization reaction?

Ans. In a neutralization reaction an acid reacts with a base, forming salt and water

Q4. Name the three oxides

Ans. H_2O , N_2O, NO

Q5. Which of the following is an exothermic reaction and which is an endothermic reaction?

a) Photosynthesis- endothermic
b) Respiration- exothermic

Q6. Why your tongue feel cold when you put some some glucose on it ?

Ans. Our tongue feels cold because it absorbs the latent heat of vaporization from body and makes it cold in return.

Q7. Which of the following reaction once started will continue on its own and which one will not? Ans.a)

Composition of limestone will not continue on its own .

b) rusting once started will continue on its own .

Q8.what would you observe in the following cases ?

a) When carbon dioxide is passed through lime water, the lime water turns Milky.
b) When ignited magnesium ribbon is placed in steam a burning magnesium ribbon continuesto burn forming the magnesium oxide and hydrogen.

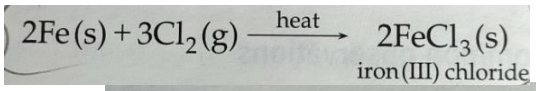
c) When mixture of hydrogen and oxygen is lit it will produce water.

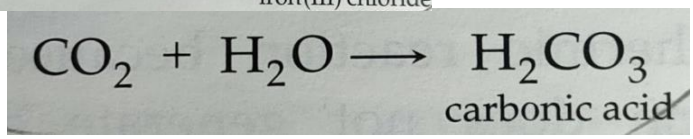
d) When an iron knife is placed in a copper sulfate solution there is a brown red deposit of copper over the iron object.

Q9. Give balanced chemical equation for the following reactions.

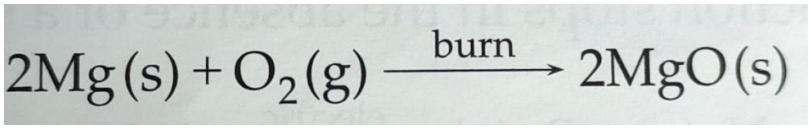
a) On Being heated with chlorine, iron from iron (III) chloride.

b) Carbon dioxide dissolve in water to form carbonic acid.





c) when burnt in oxygen magnesium forms magnesium oxide.



d) hydrogen reacts with chlorine in sunlight to hydrogen chloride. H2 + Cl2 - 7 2 HCl

e) When heated with sulfur iron forms iron sulfide. 2Fe+ S 7 Fe2S

Long -answer questions

Q1. Mention three examples of exothermic and three examples of endothermic reactions

1. Burning
2. Respiration
3. Rusting

Endothermic

1. photosynthesis
2. Thermal decomposition
3. Combination of nitrogen with oxygen

Q2. Discuss why there is an energy change in chemical reaction.

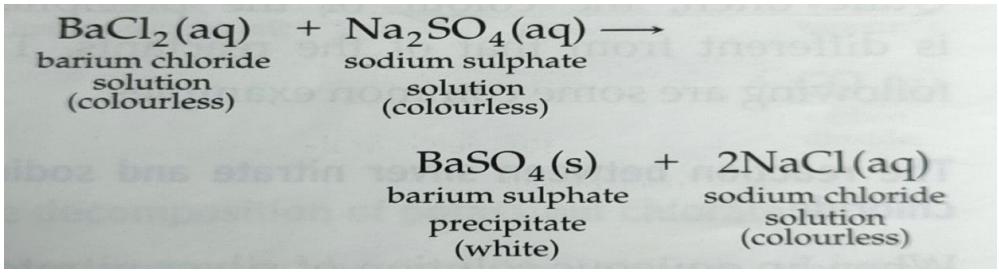
Ans. Two atoms in a molecule are held together by force of attraction called chemical bond, the energy is absorbed in breaking of these bonds and energy is given out in forming fresh bonds.

Q3. Describe the electro- lysis of water.

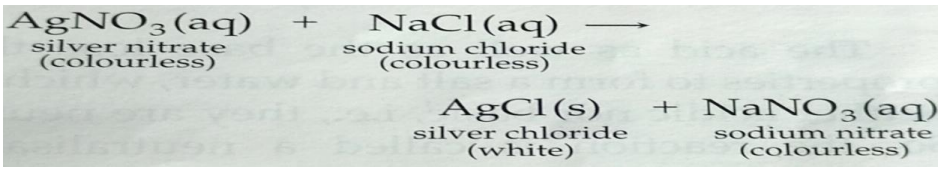
Ans .Electrolysis is the process in which a substance is decomposed or broken down into simpler substances by passing an electric current through it. We take Some water mixed with a few drops of sulfuric acid in a beaker invert two test tube full of water Now connect the wire to a battery and pass the current In the beaker, the gas start collecting In the test tube . we observed that the volume of gas collected Over the negative electrode is twice that of the gas collected over positive electrode.

Q4. Discuss double displacement reaction with two examples.

Ans. In double displacement reaction the positive and negative radicals of two reactants are exchanged, leading to the precipitation of product.

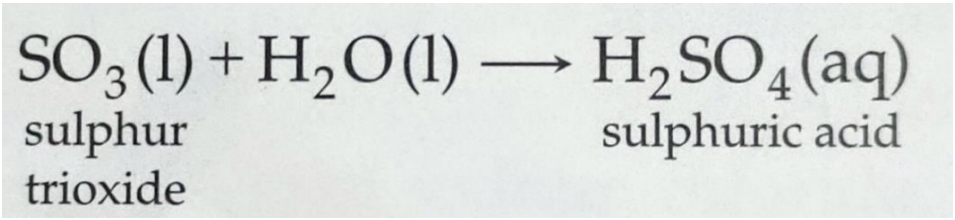


Q5. Discuss neutralization reaction with an activity to Show how such a reaction is carried out.



Q6. What are the acidic and basic oxide? Give examples with reaction.

Acidic oxide dissolves in water to form acid which neutralize base to form the salt and water

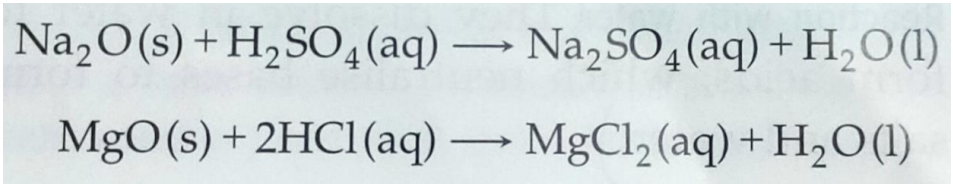


Basic oxide – the oxides of metals are generally basic and react with acids to form salt and water .

Q7. Write a note on amphoteric oxides.

An amphoteric oxide is one which behaves like a base in the presence of an acid and like an acid in the presence of a base.

Eg. Al2O3, Zn0 and PbO



Objective type questions

MCQ

1. **In which of the following reactions will heat be evolved ?** The slaking of lime
2. In which of the following reactions will light be absorbed? Photosynthesis
3. which of the following equations represents a displacement reaction?

Mg + H2O→ MgO + H

4. Which of the following equations represent the double decomposition reaction?

AgNO3 + NaCl → AgCl + NaNO3

Match the following

1. N2O- a neutral oxide
2. N2O5- Anhydride of nitric acid
3. SO2- Anhydride of sulphurous acid
4. SO3- Anhydride of sulphuric acid

Fill in the blanks

1. White
2. Mixture
3. Grey- black
4. 2:1
5. Decomposition
6. White
7. Red
8. a. Red b. Blue

Write true or false

1. Coal gives heat when burnt -True
2. Rusting is an endothermic process-False
3. On heating strongly potassium chlorate gives potassium chloride and oxygen-True
4. The electrolysis of water involves a combination reaction-False
5. An exchange of radicals between two reactants takes place in a double decomposition reaction-True
6. Lime water can be neutralize by an acid-True
7. Neutralization is an endothermic pocess- False