

Chemical Reactions And Equations

NCERT Book Questions And Answers

Exercise (NCERT Text Book)

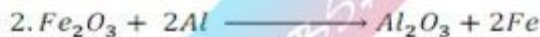
Question -1 :- Which of the statements about the reaction below are incorrect?



- (a) Lead is getting reduced.
 - (b) Carbon dioxide is getting oxidised.
 - (c) Carbon is getting oxidised.
 - (d) Lead oxide is getting reduced.
- (i) (a) and (b)
(ii) (a) and (c)
(iii) (a), (b) and (c)
(iv) all

Answer:- (i) (a) and (b)

Question: 2



The above reaction is an example of a

- (a) combination reaction.
- (b) double displacement reaction.
- (c) decomposition reaction.
- (d) displacement reaction.

Answer : (d) displacement reaction.

Question -3: What happens when dilute hydrochloric acid is added to iron fillings? Tick the correct answer.

- (a) Hydrogen gas and iron chloride are produced.
- (b) Chlorine gas and iron hydroxide are produced.
- (c) No reaction takes place.
- (d) Iron salt and water are produced.

Answer : (a) Hydrogen gas and iron chloride are produced.

Q -4- What is a balanced chemical equation? Why should chemical equations be balanced?

Answer – When the number of atoms of reactants is equal to the number of atoms of the products, the reaction is called a balanced chemical equation.

According to the Law of conservation of mass, total mass of the elements present in the reactants must be equal to the total mass of the elements present in products. That's why a chemical equations should be balanced always.

Q -5- Translate the following statements into chemical equations and then balance them.

- (a) Hydrogen gas combines with nitrogen to form ammonia.
- (b) Hydrogen sulphide gas burns in air to give water and sulphur dioxide.
- (c) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.
- (d) Potassium metal reacts with water to give potassium hydroxide and hydrogen gas.

Answer:



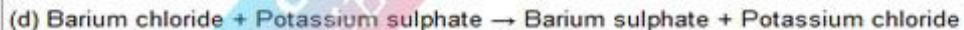
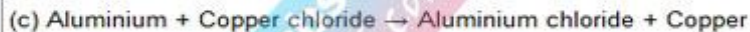
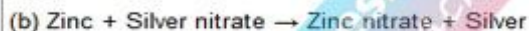
Q -6. Balance the following chemical equations:



Answer:



Q -7. Write the balanced chemical equations for the following reactions.



Answer:



Q -8. Write the balanced chemical equation for the following and identify the type of reaction in each case.

Q -8. Write the balanced chemical equation for the following and identify the type of reaction in each case.

(a) Potassium bromide(aq) + Barium iodide(aq) → Potassium iodide(aq) + Barium bromide(s)

(b) Zinc carbonate(s) → Zinc oxide(s) + Carbon dioxide(g)

(c) Hydrogen(g) + Chlorine(g) → Hydrogen chloride(g)

(d) Magnesium(s) + Hydrochloric acid(aq) → Magnesium chloride(aq) + Hydrogen(g)

Answer:



It is a double displacement reaction.



It is a decomposition reaction.



It is a combination reaction.



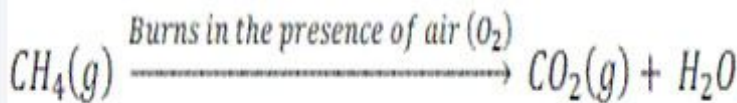
It is a displacement reaction.

Q -9. What does one mean by exothermic and endothermic reactions? Give examples.

Answer -

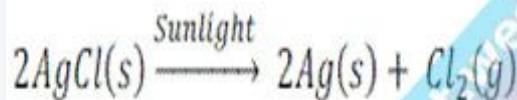
Exothermic reaction – A reaction in which heat is released is called the exothermic reaction.

Burning of fuel is an example of exothermic reaction. When methane is burnt it gives heat along with carbon dioxide and water.



Endothermic reaction – A reaction in which heat is absorbed is called endothermic reaction.

Example – When silver chloride is left in the sunlight, it absorbs heat and turns grey because of formation of silver metal.



10. Why is respiration considered an exothermic reaction? Explain.

Answer – In the course of respiration glucose is broken into carbon dioxide and energy is released. That's why it is considered as an exothermic reaction.

