

# Science

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(Chapter - 1) (Chemical Reactions and Equations) (Practice Test 2 Answers)

(Class X)

Section - A

1. (c) formation of magnesium oxide.
2. (d) formation of hydrogen gas.
3. (d) bubbles come out.
4. (c) Reaction color change.

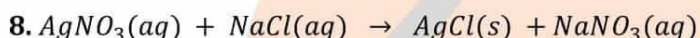
Section - B

5. *Al* is the reducing agent. *Al* is more reactive than *Mn*.

**Reason:** It is because *Al* is displacing *Mn* from *MnO<sub>2</sub>*.

6. We must balance a skeletal equation so as to ensure that the reaction follows 'Law of conservation of mass'. The total mass of reactants must be equal to the total mass of products that is why all reactions should be balanced.

7. Oxidation is a process in which oxygen is added or loss of electrons take place. Reduction is a process in which hydrogen is added or gain of electrons takes place.



It is a precipitation reaction.

9. *H<sub>2</sub>O* is a compound constituted of hydrogen of oxygen elements and being a compound it has different properties as compared to its constituting elements.

Section - C

10.
  - a. Hydrogen is collected at the cathode, oxygen is collected at the anode.
  - b. It is because *H<sub>2</sub>O* contains hydrogen and oxygen in the ratio 2: 1.
  - c. Bring a burning matchstick near the gas, if the gas burns with 'pop' sound, the gas is *H<sub>2</sub>*.
11.
  - a.  $2Mg(s) + O_2(g) \rightarrow 2MgO(s)$ ; Oxidation reaction.
  - b.  $2H_2O(l) \rightarrow 2H_2(g) + O_2(g)$ ; Decomposition reaction.
  - c.  $NH_3(g) + HCl(g) \rightarrow NH_4Cl(s)$ ; Combination reaction.

Section - D

12.
  - a. **Decomposition reaction:** It is a process in which a compound is broken down into simple substances.
  - b. **Oxidation:** The process in which oxygen is added or electrons are lost.
  - c. **Displacement reaction:** The reaction in which a more reactive element can displace a less reactive element from its salt solution. Oxidation and Reduction are taking place simultaneously in rusting of iron.
  - d. **Displacement reaction:** The reaction in which a more reactive element can displace a less reactive element.
  - e. **Neutralization reaction:** The reaction in which acid reacts with base to form salt and water.

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