

Chemistry

Chemical Reactions & Equations

Q 1 Which among the following statement(s) is(are) true?

Exposure of silver chloride to sunlight for a long duration turns grey due to:

- (i) the formation of silver by decomposition of silver chloride
- (ii) sublimation of silver chloride
- (iii) decomposition of chlorine gas in silver chloride
- (iv) oxidation of silver chloride

- (A) (i) only
- (B) (i) and (iii)
- (C) (ii) and (iii)
- (D) (iv) only

Q 2 A compound (X) on heating decomposes to give compound (Y) and a gas (Z). Compound (Y) on slaking with water forms a substance (W) which after dissolving in water is used for white washing. After two to three days of white washing there is a shiny finish on the walls because compound (X) is formed over the walls.

Identify X, Y, Z and W from the given options.

- (A) $X : CaO, Y : CaCO_3, Z : CO_2, W : Ca(OH)_2$
- (B) $X : CaCO_3, Y : CaO, Z : H_2O, W : Ca(OH)_2$
- (C) $X : CaCO_3, Y : CaO, Z : CO_2, W : Ca(OH)_2$
- (D) $X : CaO, Y : CaCO_3, Z : H_2O, W : Ca(OH)_2$

Q 3 Which of the following is correct for the products formed in the electrolysis of water?

- (A) Cathode: O_2 , Anode: CO_2
- (B) Cathode: CO_2 , Anode: H_2O
- (C) Cathode: H_2 , Anode: O_2
- (D) Cathode: O_2 , Anode: H_2

Q 4 Assertion (A): The blue-green colour of the solution of copper chloride changes to colourless when lead metal is put into the solution.

Reason (R): Lead is more reactive than copper and it displaces it to form lead chloride.

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (C) (A) is true but (R) is false
- (D) (A) is false but (R) is true

Q 5 Metals generally react with dilute acids to produce hydrogen gas. Which one of the following metals does not react with dilute hydrochloric acid?

- (A) Magnesium
- (B) Aluminium

(C) Iron

(D) Copper

Q 6 In a double displacement reaction such as the reaction between sodium sulphate solution and barium chloride solution:

- (i) exchange of atoms takes place
- (ii) exchange of ions takes place
- (iii) a precipitate is produced
- (iv) an insoluble salt is produced

The correct option is:

- (A) (ii) and (iv)
- (B) (i) and (iii)
- (C) Only (ii)
- (D) (ii), (iii) and (iv)

Q 7 Which among the following is(are) double displacement reaction(s)?

- (i) $Pb + CuCl_2 \rightarrow PbCl_2 + Cu$
- (ii) $Na_2SO_4 + BaCl_2 \rightarrow BaSO_4 + 2NaCl$
- (iii) $C + O_2 \rightarrow CO_2$

- (A) (i) and (ii)
- (B) Only (i)
- (C) Only (ii)
- (D) (ii) and (iii)

Q 8 A chemical reaction between aqueous solution of silver nitrate and sodium chloride produces:

- (A) silver chloride (aqueous solution) and sodium nitrate (precipitate)
- (B) silver nitrate (precipitate) and sodium nitrate (precipitate)
- (C) silver chloride (precipitate) and sodium nitrate (aqueous solution)
- (D) no chemical reaction takes place

Q 9 Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride.

Which of the following correctly represents the type of the reaction involved?

- (i) Displacement reaction
- (ii) Precipitation reaction
- (iii) Combination reaction
- (iv) Double displacement reaction

- (A) (i) only
- (B) (ii) only
- (C) (iv) only
- (D) (ii) and (iv)

Q 10 Which among the following when formed as a precipitate will not be white in colour?

- (A) $BaSO_4$
- (B) $AgCl$
- (C) $CaCO_3$
- (D) PbI_2

Answer Key

Q1	A	Q6	D
Q2	C	Q7	C
Q3	C	Q8	C
Q4	A	Q9	D
Q5	D	Q10	D



Hints & Solutions

Q 1 Text Solution:

Thermal decomposition of silver chloride produces two elements.

Video Solution:



Q 2 Text Solution:

Thermal decomposition of X takes place which forms quick lime and gas is released which turns lime water milky

Video Solution:



Q 3 Text Solution:

Reduction takes place on anode while oxidation on cathode.

Video Solution:



Q 4 Text Solution:

Hint: Apply reactivity series. The more reactive metal displaces less reactive metal from its salt solution.

Video Solution:



Q 5 Text Solution:

The metal below hydrogen in the reactivity series can't displace hydrogen from dilute acids.

Video Solution:



Q 6 Text Solution:

In this reaction an insoluble solid is formed after the exchange of ions between reactants.

Video Solution:



Q 7 Text Solution:

Check for the reaction where exchange of ions takes place between reactants.

Video Solution:



Q 8 Text Solution:

It is a type of a double displacement reaction.

Video Solution:



Q 9 Text Solution:

In this reaction an insoluble solid is formed after the exchange of ions between reactants.

Video Solution:



Q 10 Text Solution:

This is a memory-based question. A hint can't help!

Video Solution:



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