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Academy

Chemistry Worksheets Class 10 on Chapter 1 Chemical Reactions and Equations- Set 1

Q-1: Write the balanced chemical equations for each of the following reactions.

- Liquid hydrogen peroxide decomposes to form water and oxygen gas.
- Acetylene gas burns in oxygen to form carbon dioxide and water along with evolution of heat.
- When solid mercury(II) oxide is heated, liquid mercury and oxygen gas are produced.
- Marble dissolves in a hydrochloric acid to give calcium chloride, water and carbon dioxide.
- Copper sulphate on treatment with potassium iodide precipitates cuprous iodide, liberates iodine gas and also forms potassium sulphate.

Q-2: Fill in the blanks

- _____ is the magnetic oxide of iron.
- In reactivity series, manganese lies _____ zinc
- To the reaction between AgNO_3 solution and NaCl solution, the names given to this type of reactions are _____ and _____.
- Proteins decompose to form _____ in our body.
- If copper turnings are added to colourless AgNO_3 solution, it turns _____ after sometime.

Q-3: Which of the following displacement reactions will not take place?

- $\text{Zn(s)} + \text{FeSO}_4(\text{aq}) \rightarrow \text{ZnSO}_4(\text{aq}) + \text{Fe(s)}$
- $\text{Fe(s)} + \text{CuSO}_4(\text{aq}) \rightarrow \text{FeSO}_4(\text{aq}) + \text{Cu(s)}$
- $\text{Cu(s)} + 2\text{AgNO}_3(\text{aq}) \rightarrow \text{Cu(NO}_3)_2(\text{aq}) + 2\text{Ag(s)}$
- $\text{Cu(s)} + \text{FeSO}_4(\text{aq}) \rightarrow \text{CuSO}_4(\text{aq}) + \text{Fe(s)}$

Q-4: Which of the following statements is false?

- a) Oxidation results in the loss of an electropositive element and the gain of an electronegative element.
- b) Reduction results in the loss of an electronegative element and the gain of an electropositive element.
- c) A species that gains electrons is referred to as a reducing agent.
- d) An oxidising agent is a type of specie that absorbs hydrogen atoms.

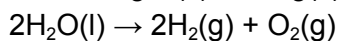
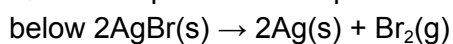
Q-5: Why are certain chemicals and medications kept in coloured bottles?

Q-6: Sakshi desired that her home be white washed. She went to the market and bought 20 kg of quick lime, which she dissolved in 60 litres of water. When she added lime to water, she noticed that the water began to boil even though it was not heated. Give an explanation for her observation. Name the product and write the corresponding chemical equation and word equation.

Q-7: State True and False. If False, state reasons.

- a) In a closed vessel, the reaction between heated iron and steam is reversible.
- b) Aluminium is highly corrosion resistant.
- c) Strong heating of green FeSO_4 crystals results in a FeO residue.
- d) A chemical reaction is always accompanied by a temperature increase.
- e) Respiration is the process by which glucose in the body is oxidised.

Q-8: Examples of decomposition reactions are provided



These reactions represent respectively

- a) thermal decomposition, thermal decomposition
- b) thermal decomposition, electrolytic decomposition
- c) photolytic decomposition, electrolytic decomposition
- d) photolytic decomposition, thermal decomposition

Q-9: Which of the following substances does not produce CO_2 when exposed to dilute acid?

- a) Lime
- b) Limestone
- c) Baking soda
- d) Marble

Q-10: Match the applications in Column I with the chemical substances in Column II.

Column I	Column II
A) Antacid	1) Washing soda
B) Decolourisation	2) Sodium chloride
C) Production of H_2 and Cl_2	3) Bleaching powder
D) Preparation of glass	4) Baking soda
