

Chapter 1: Chemical Reactions and Equations

1. Before burning in air, the magnesium ribbon is cleaned by rubbing with a sand paper to:

- a. Make the ribbon surface shinier
- b. Remove the layer of magnesium oxide from the ribbon surface
- c. Remove the layer of magnesium carbonate from the ribbon surface
- d. Remove the moisture from the ribbon surface

Answer. c. Remove the layer of magnesium carbonate from the ribbon surface.

2. In a chemical reaction between sulphuric acid and barium chloride solution the white precipitates formed are of:

- a. Hydrochloric acid
- b. Barium sulphate
- c. Chlorine
- d. Sulphur

Answer. b. Barium sulphate

3. The respiration process during which glucose undergoes slow combustion by combining with oxygen in the cells of our body to produce energy, is a kind of:

- a. Exothermic process
- b. Endothermic process
- c. Reversible process
- d. Physical process

Answer. a. Exothermic process

4. A chemical reaction does not involve:

- a. Formation of new substances having entirely different properties than that of the reactants
- b. Breaking of old chemical bonds and formation of new chemical bonds
- c. Rearrangement of the atoms of reactants to form new products
- d. Changing of the atoms of one element into those of another element to form new products

Answer. d. Changing of the atoms of one element into those of another element to form new products

5. One of the following processes does not involve a chemical reaction. That is:

- a. Melting of candle wax when heated
- b. Burning of candle wax when heated
- c. Digestion of food in our stomach

d. Ripening of banana

Answer. a. Melting of candle wax when heated

6. It is necessary to balance a chemical equation in order to satisfy the law of:

- a. Conservation of motion
- b. Conservation of momentum
- c. Conservation of energy
- d. Conservation of mass

Answer. d. Conservation of mass

7. All the methods mentioned below can be used to prevent the food from getting rancid except:

- i. Storing the food in the air-tight containers
 - ii. Storing the food in refrigerator
 - iii. Keeping the food in clean and covered containers
 - iv. Always touching the food with clean hands
- a. (i) and (ii)
 - b. (i) and (iii)
 - c. (i), (iii) and (iv)
 - d. (iii) and (iv)

Answer. d. (iii) and (iv)

8. Rusting of iron involves a chemical reaction which is a combination of:

- a. Reduction as well as combination reactions
- b. Oxidation as well as combination reactions
- c. Reduction as well as displacement reactions
- d. Oxidation as well as displacement reactions

Answer. b. Oxidation as well as combination reactions

9. You are given the following chemical reaction:

This reaction represents:

- a. Combination reaction as well as double displacement reaction
 - b. Redox reaction as well as displacement reaction
 - c. Double displacement reaction as well as redox reaction
 - d. Decomposition reaction as well as displacement reaction
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Answer. b. Redox reaction as well as displacement reaction

10. When ferrous sulphate is heated strongly it undergoes decomposition to form ferric oxide as a main product accompanied by a change in colour from:

- a. Blue to green.
- b. Green to blue.
- c. Green to brown.
- d. Green to yellow.

Answer. c. Green to brown

11. Which of the following gases is used in the storage of fat and oil containing foods for a long time?

- a. Carbondioxide gas
- b. Nitrogen gas
- c. Oxygen gas
- d. Neon gas

Answer. b. Nitrogen gas

12. Following is given a diagram showing an experimental set-up:

The given set-up is used to carry out:

- a. Distillation of water
- b. Purification of water
- c. Electrolysis of water
- d. HydrolysisJagranjosh

Answer. c. Electrolysis of water

13. The displacement reaction between iron (III) oxide and a metal X is used for welding the rail tracks. Here X is:

- a. Copper granules
- b. Magnesium ribbon
- c. Sodium pellets
- d. Aluminium dust

Answer. d. Aluminium dust

14. The neutralization reaction between an acid and a base is a type of:

- a. Double displacement reaction
- b. Displacement reaction
- c. Addition reaction
- d. Decomposition reaction

Answer. a. Double displacement reaction

15. The chemical reaction between Hydrogen sulphide and iodine to give Hydrogen iodide and sulphur is given below:

The reducing and oxidizing agents involved in this redox reaction are:

- a. Iodine and sulphur respectively
- b. Iodine and hydrogen sulphide respectively
- c. Sulphur and iodine respectively
- d. Hydrogen sulphide and sulphur

Answer. b. Iodine and hydrogen sulphide respectively