

Chemical Reactions MCQ Questions with Answers

1. Redox reactions are those where ____ simultaneously.

- (A) exothermic - endothermic reactions occur
- (B) oxidation - reduction occur
- (C) reversible - irreversible reactions occur
- (D) composition - decomposition reactions occur

2. Redox reactions are useful in

- (A) bleaching industry (B) extraction of metals
- (C) dying industry (D) all of these

3. In a chemical reaction, if one of the product is a gas which burns with a 'pop', then the gas is

- (A) Cl_2 (B) O_2 (C) H_2 (D) CO_2

4. The gas which turns lime water milky is

- (A) SO (B) CO (C) CO_2 (D) H_2S

5. The gas which has a characteristic pungent smell is

- (A) NH_3 (B) Cl_2 (C) SO_2 (D) H_2

6. The gas which smells like rotten eggs is

- (A) CO_2 (B) NO_2 (C) SO_2 (D) H_2S

7. The formation of gas bubbles in a liquid during a reaction is called

- (A) fuzzing (B) bubbling (C) deliquidizing (D) effervescence

8. $\text{CuSO}_4 + \text{Fe} \rightarrow \text{FeSO}_4 + \text{Cu}$. During this reaction change of colour occurs as

- (A) blue to pale green (B) blue to black
- (C) white to blue (D) white to black

9. $\text{Pb}(\text{NO}_3)_2$ which is colourless, reacts with H_2S to give a precipitate of PbS, whose colour is

- (A) brown (B) white (C) black (D) green

10. In the electrolysis of water, liquid water decomposes into its

- (A) two gaseous constituents (B) one gaseous and one liquid constituent
- (C) two liquid constituents (D) two solid constituents

11. $\text{H}_2\text{S} + \text{Cl}_2 \rightarrow 2\text{HCl} + \text{S}$ In the above reaction, the gaseous reactants produce

- (A) two solid products (B) one gaseous and one solid product
- (C) one liquid and one solid product (D) one gaseous and one liquid product

12. Solubility of a solute

- (A) increases with temperature (B) decreases with temperature
- (C) remains constant (D) none of these

13. $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$ This reaction is

- (A) moderate (B) very fast (C) very slow (D) instantaneous

14. Complete the reaction $2\text{Mg} + 2\text{H}_2\text{O} \rightarrow ?$

- (A) $\text{Mg} + 2\text{H}_2\text{O}$ (B) $\text{Mg} + \text{H}_2 + \text{O}_2$
- (C) $\text{MgO} + \text{H}_2$ (D) $\text{Mg}(\text{OH})_2 + \text{H}_2$

15. When Mg ribbon is dipped in a test tube containing conc. HCl, products formed are

- (A) $\text{Mg} + \text{H}_2 + \text{Cl}_2$ (B) $\text{MgCl}_2 + \text{H}_2$
- (C) $\text{Mg} + \text{Cl}_2$ (D) $\text{Mg} + \text{H}_2$

16. Which of the following is the fastest reaction?

- (A) aluminium foil + NaOH + heat (B) aluminium foil + NaOH
- (C) aluminium powder + NaOH (D) all the above

17. Reaction in which heat energy is released is called

- (A) irreversible (B) reversible (C) endothermic (D) exothermic

18. A catalyst when added to a chemical reaction changes the

- (A) colour of the reactants (B) course of the reaction
- (C) speed of the reaction (D) physical state of the products

19. During the process of photosynthesis the catalyst is

- (A) sunlight (B) chlorophyll (C) CO_2 (D) glucose

20. In our body the catalyst which helps to break down food is

- (A) dil HCl (B) hormones (C) NaOH (D) digestive enzymes

21. Which of the following is a reversible reaction?

- (A) $\text{CaCO}_3 + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{CO}_2 + \text{H}_2\text{O}$ (B) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$
- (C) $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$ (D) $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$

22. An example of exothermic reaction is

- (A) $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2$ (B) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- (C) $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$ (D) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

23. During photosynthesis, CO_2 reacts with H_2O to form glucose. The energy required for the reaction is obtained

- (A) by heating (B) from sunlight
- (C) from electric current (D) from CO_2

24. In the decomposition of NH_4Cl , the products formed are

- (A) $\text{N}_2 + \text{Cl}_2$ (B) $\text{NH}_3 + \text{HCl}$
- (C) $\text{H}_2 + \text{Cl}_2$ (D) $\text{N}_2 + \text{HCl}$

25. Water breaks into its constituents

- (A) by magnetic effect (B) by light (C) by heating (D) by passing electric current