

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) Cl₂ (B) O₂ (C) H₂ (D) CO₂

4. The gas which turns lime water milky is

- (A) SO (B) CO (C) CO₂ (D) H₂S

5. The gas which has a characteristic pungent smell is

- (A) NH₃ (B) Cl₂ (C) SO₂ (D) H₂

6. The gas which smells like rotten eggs is

- (A) CO₂ (B) NO₂ (C) SO₂ (D) H₂S

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

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

8. CuSO₄ + Fe → FeSO₄ + 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. Pb(NO₃)₂ which is colourless, reacts with H₂S 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. H₂S + Cl₂ → 2HCl + 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. 4Fe + 3O₂ → 2Fe₂O₃ This reaction is

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

14. Complete the reaction 2 Mg + 2H O → ?

- (A) Mg + 2H₂O (B) Mg + H₂ + O₂
- (C) MgO + H₂ (D) Mg(OH)₂ + H₂

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

- (A) Mg + H₂ + Cl₂ (B) MgCl₂ + H₂
- (C) Mg + Cl₂ (D) Mg + H₂

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) CO₂ (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) CaCO₃ + 2HCl → CaCl₂ + CO₂ + H₂O (B) 2Mg + O₂ → 2MgO
- (C) N₂ + 3H₂ → 2NH₃ (D) Fe + CuSO₄ → FeSO₄ + Cu

22. An example of exothermic reaction is

- (A) CaO + H₂O → Ca(OH)₂ (B) CaCO₃ → CaO + CO₂
- (C) 4Fe + 3O₂ → 2Fe₂O₃ (D) 2Mg + O₂ → 2MgO

23. During photosynthesis, CO₂ reacts with H₂O to form glucose. The energy required for the reaction is obtained

- (A) by heating (B) from sunlight

- (C) from electric current (D) from CO₂

24. In the decomposition of NH₄Cl, the products formed are

- (A) N₂ + Cl₂ (B) NH₃ + HCl
- (C) H₂ + Cl₂ (D) N₂ + HCl

25. Water breaks into its constituents

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