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. $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$. 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. $Pb(NO_3)^2$ 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. $H_2S + Cl_2 \rightarrow 2HCl + S$ 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. $4Fe + 3O_2 \longrightarrow 2Fe_2O_3$ This reaction is
(A) moderate (B) very fast (C) very slow (D) instantaneous

14. Complete the reaction 2 Mg + 2H O$\longrightarrow$?
(A) $Mg + 2H_2O$ (B) $Mg + H_2 + O_2$
(C) $MgO + H_2$ (D) $Mg(OH)_2 + H_2$

15. When Mg ribbon is dipped in a test tube containing conc. HCl, products formed are
(A) $Mg + H_2 + Cl_2$ (B) $MgCl_2 + H_2$
(C) $Mg + Cl_2$ (D) $Mg + H_2$

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) $CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$ (B) $2Mg + O_2 \rightarrow 2MgO$
(C) $N_2 + 3H_2 \rightarrow 2NH_3$ (D) $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$

22. An example of exothermic reaction is
(A) $CaO + H_2O \rightarrow Ca(OH)^2$ (B) $CaCO_3 \rightarrow CaO + CO_2$
(C) $4Fe + 3O_2 \rightarrow 2Fe_2O_3$ (D) $2Mg + O_2 \rightarrow 2MgO$

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) $N_2 + Cl_2$ (B) $NH_3 + HCl$
(C) $H_2 + Cl_2$ (D) $N_2 + HCl$

25. Water breaks into its constituents
(A) by magnetic effect (B) by light (C) by heating (D) by passing electric current

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