

Q.1. Magnesium ribbon is rubbed before burning because it has a coating of

- (a) basic magnesium carbonate
- (b) basic magnesium oxide
- (c) basic magnesium sulphide
- (d) basic magnesium chloride

Answer: a

Q.2. The chemical formula of lead sulphate is

- (a) Pb_2SO_4
- (b) $\text{Pb}(\text{SO}_4)_2$
- (c) PbSO_4
- (d) $\text{Pb}_2(\text{SO}_4)_3$

Answer: c

Q.3. When green coloured ferrous sulphate crystals are heated, the colour of the crystal changes because

- (a) it is decomposed to ferric oxide
- (b) it loses water of crystallisation
- (c) it forms SO_2
- (d) it forms SO_3

Answer: b

Q.4. Which information is not conveyed by a balanced chemical equation?

- (a) Physical states of reactants and products
- (b) Symbols and formulae of all the substances involved in a particular reaction
- (c) Number of atoms/molecules of the reactants and products formed
- (d) Whether a particular reaction is actually feasible or not

Answer: d

Q.5. In which of the following chemical equations, the abbreviations represent the correct states of the reactants and products involved at reaction temperature?

- (a) $2\text{H}_2(\text{l}) + \text{O}_2(\text{l}) \rightarrow 2\text{H}_2\text{O}(\text{g})$
- (b) $2\text{H}_2(\text{g}) + \text{O}_2(\text{l}) \rightarrow 2\text{H}_2\text{O}(\text{l})$
- (c) $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{l})$
- (d) $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{g})$

Answer: d

Q.6. Chemically rust is

- (a) hydrated ferrous oxide
- (b) only ferric oxide
- (c) hydrated ferric oxide
- (d) none of these

Answer: c

Q.7. A dilute ferrous sulphate solution was gradually added to the beaker containing acidified permanganate solution. The light purple colour of the solution fades and finally disappears. Which of the following is the correct explanation for the observation?

- (a) KMnO_4 is an oxidising agent, it oxidises FeSO_4 .
- (b) FeSO_4 acts as an oxidising agent and oxidises KMnO_4 .
- (c) The colour disappears due to dilution; no reaction is involved.
- (d) KMnO_4 is an unstable compound and de-composes in presence of FeSO_4 to a colourless compound.

Answer: a

Q.8. Both CO_2 and H_2 gases are

- (a) heavier than air
- (b) colourless
- (c) acidic in nature
- (d) soluble in water

Answer: b

Q.9. $\text{Pb} + \text{CuCl}_2 \rightarrow \text{PbCl}_2 + \text{Cu}$

The above reaction is an example of:

- (a) combination
- (b) double displacement
- (c) decomposition
- (d) displacement

Answer: d

Q.10. Which of the following gases can be used for storage of fresh sample of an oil for a long time?

- (a) Carbon dioxide or oxygen
- (b) Nitrogen or helium
- (c) Helium or oxygen
- (d) Nitrogen or oxygen

Answer: b

Q.11. Name the products formed when iron filings are heated with dilute hydrochloric acid

- (a) Fe (III) chloride and water
- (b) Fe (II) chloride and water
- (c) Fe (II) chloride and hydrogen gas
- (d) Fe (III) chloride and hydrogen gas

Answer: d

Explanation: $2\text{Fe} + 6\text{HCl} \rightarrow 2\text{FeCl}_3$ (Iron (III) chloride) + 3H_2

Q.12. The electrolytic decomposition of water gives H_2 and O_2 in the ratio of

- (a) 1 : 2 by volume
- (b) 2 : 1 by volume
- (c) 8 : 1 by mass
- (d) 1 : 2 by mass

Answer: b

Q.13. Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is:

- (a) 1 : 1
- (b) 2:1
- (c) 4:1
- (d) 1:2

AnswerAnswer: b

Q.14. In the decomposition of lead (II) nitrate to give lead (II) oxide, nitrogen dioxide and oxygen gas, the coefficient of nitrogen dioxide (in the balanced equation) is

- (a) 1
- (b) 2
- (c) 3
- (d) 4

AnswerAnswer: d

Q.15. The condition produced by aerial oxidation of fats and oils in foods marked by unpleasant smell and taste is called:

- (a) antioxidation
- (b) reduction
- (c) rancidity
- (d) corrosion

AnswerAnswer: c

Q.16. Fatty foods become rancid due to the process of

- (a) oxidation
- (b) corrosion
- (c) reduction
- (d) hydrogenation

AnswerAnswer: a

Q.17. A substance added to food containing fats and oils is called:

- (a) Oxidant
- (b) Rancid
- (c) Coolant
- (d) Antioxidant

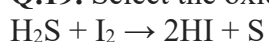
AnswerAnswer: d

Q.18. We store silver chloride in a dark coloured bottle because it is

- (a) a white solid
- (b) undergoes redox reaction
- (c) to avoid action by sunlight
- (d) none of the above

AnswerAnswer: c

Q.19. Select the oxidising agent for the following reaction:



- (a) I_2
- (b) H_2S

- (C) HI
- (d) S

Answer: a

Q.20. Silver article turns black when kept in the open for a few days due to formation of

- (a) H_2S
- (b) AgS
- (c) AgSO_4
- (d) Ag_2S

Answer: d

Q.21. What type of chemical reactions take place when electricity is passed through water?

- (a) Displacement
- (b) Combination
- (c) Decomposition
- (d) Double displacement

Answer: c

Q.22. When crystals of lead nitrate are heated strongly in a dry test tube

- (a) crystals immediately melt
- (b) a brown residue is left
- (c) white fumes appear in the tube
- (d) a yellow residue is left

Answer: b

Q.23. Which of the following is an endothermic process?

- (a) Dilution of sulphuric acid
- (b) Sublimation of dry ice
- (c) Condensation of water vapours
- (d) Respiration in human beings

Answer: b

Q.24. Dilute hydrochloric acid is added to granulated zinc taken in a test tube. The following observations are recorded. Point out the correct observation.

- (a) The surface of metal becomes shining
- (b) The reaction mixture turns milky
- (c) Odour of a pungent smelling gas is recorded
- (d) A colourless and odourless gas is evolved

Answer: d

Q.25. When Ag is exposed to air it gets a black coating of

- (a) AgNO_3
- (b) Ag_2S
- (c) Ag_2O
- (d) Ag_2CO_3

Answer: b

Q.26. A substance 'X' is used in white-washing and is obtained by heating limestone in the absence of air. Identify 'X'.

- (a) CaOCl_2
- (b) $\text{Ca}(\text{OH})_2$
- (c) CaO
- (d) CaCO_3

Answer: a

Q.27. When carbon dioxide is passed through lime water, (a) calcium hydroxide is formed (b) white precipitate of CaO is formed (c) lime water turns milky (d) colour of lime water disappears.

Answer: c

Q.28. Which of the following are exothermic processes?

- (i) Reaction of water with quick lime
 - (ii) Dilution of an acid
 - (iii) Evaporation of water
 - (iv) Sublimation of camphor (crystals)
- (a) (i) and (ii)
 - (b) (ii) and (iii)
 - (c) (i) and (iv)
 - (d) (ii) and (iv)

Answer: a

Explanation: Reason: In both the cases, heat energy is evolved.

Q.29. In which of the following, heat energy will be evolved?

- (a) Electrolysis of water
- (b) Dissolution of NH_4Cl in water
- (c) Burning of L.P.G.
- (d) Decomposition of AgBr in the presence of sunlight

Answer: c

Q.30. When a magnesium ribbon is burnt in air, the ash formed is

- (a) black
- (b) white
- (c) yellow
- (d) pink

Answer: b

Q.31. Rancidity can be prevented by

- (a) adding antioxidants
- (b) storing food away from light
- (c) keeping food in refrigerator
- (d) all of these

AnswerAnswer: d

Q.32. The reaction of H_2 gas with oxygen gas to form water is an example of

- (a) combination reaction
- (b) redox reaction
- (c) exothermic reaction
- (d) all of these reactions

AnswerAnswer: a

Q.33. The reaction in which two compound exchange their ions to form two new compounds is called

- (a) displacement reaction
- (b) combination reaction
- (c) double displacement reaction
- (d) redox reaction

AnswerAnswer: c

Q.34. On immersing an iron nail in $CuSO_4$ solution for few minutes, you will observe

- (a) no reaction takes place
- (b) the colour of solution fades away
- (c) the surface of iron nails acquire a black coating
- (d) the colour of solution changes to green

AnswerAnswer: d

Q.35. An element X on exposure to moist air turns reddish-brown and a new compound Y is formed. The substance X and Y are

- (a) $X = Fe$, $Y = Fe_2O_3$
- (b) $X = Ag$, $Y = Ag_2S$
- (c) $X = Cu$, $Y = CuO$
- (d) $X = Al$, $Y = Al_2O_3$

AnswerAnswer: a

Question 36.

A teacher gave two test tubes to the students, one containing water and the other containing sodium hydroxide. She asked them to identify the test tube containing sodium hydroxide solution. Which one of the following can be used for the identification?

- (a) Blue litmus
- (b) Red litmus
- (c) Sodium carbonate solution
- (d) Dilute hydrochloric acid

Answer

Answer: (b) Red litmus

Question 37.

Which of the following is not physical change?

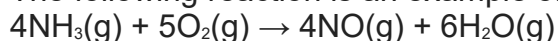
- (a) Boiling of water to give water vapour
- (b) Melting of ice to give water
- (c) Dissolution of salt in water
- (d) Combustion of Liquefied Petroleum Gas (LPG)

Answer

Answer: (d) Combustion of Liquefied Petroleum Gas (LPG)

Question 38.

The following reaction is an example of a



- (i) displacement reaction
 - (ii) combination reaction
 - (iii) redox reaction
 - (iv) neutralisation reaction
- (a) (i) and (iv)
 - (b) (ii) and (iii)
 - (c) (i) and (iii)
 - (d) (iii) and (iv)

Answer

Answer: (c) (i) and (iii)

Question 39.

Which of the following is true for an unbalanced chemical equation?

- (a) Number of atoms is equal on both sides of the equation
- (b) Number of atoms is less on the left side of the equation
- (c) Number of atoms is more on the right side of the equation
- (d) Both (b) and (c).

Answer

Answer: (d) Both (b) and (c).

Question 40.

Which option denotes a double displacement reaction?

- (a) $A + B + C$
- (b) $A + B \rightarrow C$
- (c) $AC + BD \rightarrow AD + BC$
- (d) $AC + B \rightarrow AB + C$

Answer

Answer: (c) $AC + BD \rightarrow AD + BC$

Question 41.

Which among the following is (are) double displacement reaction(s)?

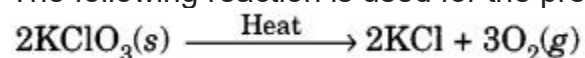
- (i) $Pb + CuCl \rightarrow PbCl_2 + Cu$
- (ii) $Na_2SO_4 + BaCl_2 \rightarrow BaSO_4 + 2NaCl$
- (iii) $C + O_2 \rightarrow CO_2$
- (iv) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$
- (a) (i) and (iv)
- (b) (ii) only
- (c) (i) and (ii)
- (d) (iii) and (iv)

Answer

Answer: (b) (ii) only

Question 42.

The following reaction is used for the preparation of oxygen gas in the laboratory:



Which of the following statement about the reaction is correct?

- (a) It is a decomposition reaction and endothermic in nature.
- (b) It is a combination reaction.
- (c) It is a decomposition reaction and accompanied by release of heat.
- (d) It is a photochemical decomposition reaction and exothermic in nature.

Answer

Answer: (a) It is a decomposition reaction and endothermic in nature.

Question 43.

Which of the following is Not True with respect to the neutralisation reaction?

- (a) Salt is formed.
- (b) Reaction occurs between an acid and a base.
- (c) Reactive element displaces less reactive element.
- (d) Reactants are in gaseous state.

Answer

Answer: (d) Reactants are in gaseous state.

Question 44.

Combustion reactions are always

- (a) Exothermic
- (b) Endothermic
- (c) Sometimes exothermic
- (d) Both (a) and (b).

Answer

Answer: (a) Exothermic

Question 45.

Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride. Which of the following correctly represents the type of the reaction involved?

- (i) Displacement reaction
 - (ii) Precipitation reaction
 - (iii) Combination reaction
 - (iv) Double displacement reaction
- (a) (i) only
 - (b) (ii) only
 - (c) (iv) only
 - (d) (ii) and (iv)

Answer

Answer: (d) (ii) and (iv)

Question 46.

Which one of the following processes involve chemical reactions?

- (a) Storing of oxygen gas under pressure in a gas cylinder
- (b) Liquefaction of air
- (c) Keeping petrol in a China dish in the open
- (d) Heating copper wire in presence of air at high temperature

[Answer](#)

Answer: (d) Heating copper wire in presence of air at high temperature

Question 47.

In the double displacement reaction between aqueous potassium iodide and aqueous lead nitrate, a yellow precipitate of lead iodide is formed. While performing the activity if lead nitrate is not available, which of the following can be used in place of lead nitrate?

- (a) Lead sulphate (insoluble)
- (b) Lead acetate
- (c) Ammonium nitrate
- (d) Potassium sulphate

[Answer](#)

Answer: (b) Lead acetate