**Q1- Reaction of 'magnesium' with air is**

A) Exothermic reaction

B) Endothermic reaction

C) Reversible reaction

D) Substitution reaction

A

**Q2- What chemicals are used in fireworks?**

A) Copper chloride

B) Calcium chloride

C) Barium chloride

D) All of above

D

**Q3- When a magnesium ribbon is burnt in air, the ash formed is**

A) Black

B) White

C) Yellow

D) Pink

B

**Q4- Color of magnesium oxide is**

A) White

B) Blue

C) Grey

D) Pink

A

**Q5- If magnesium is gently heated, it forms**

A) Magnesium oxide

B) Magnesium sulfide

C) Magnesium nitrite

D) Magnesium carbonate

A

**Q6- 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) Color of lime water disappears.

C

**Q7- 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

B

**Q8- Color of Solid magnesium is**

A) Dark grey

B) Silver grey

C) Black

D) Whitish silver

B

**Q9- Consider equations: Ca⁺²(aq) + 2OH‾(aq)→Ca(OH)₂ (s). Precipitate of calcium hydroxide will be of**

A) Green color

B) Blue color

C) Brown color

D) White color

D

**Q10- In writing chemical equations, inclusion of state symbols shall be done while**

A) Correct chemical formulae of reactants and products are written

B) The equation is being balanced to fulfill the law of conservation of mass

C) The equation has been balanced

D) The chemical formulae of products and reactants have been changed to bring about quick balancing

C

**Q11- Consider equation: Pb⁺² (aq) + 2OH⁻ (aq) → Pb(OH)₂ (s). precipitate of lead (II) hydroxide will be of**

A) Green color

B) Blue color

C) Brown color

D) White color

D

**Q12- Consider equation: Cu⁺² (aq) + 2OH⁻(aq) → Cu(OH)₂ (s). precipitate of Copper Hydroxide (Cu(OH)₂) will be of**

A) Green color

B) Blue color

C) Brown color

D) White color

B

**Q13- Consider reaction: Na(s) + O₂(g) → Na₂O(s). Moles of sodium needed to balance equation would be**

A) 1

B) 2

C) 3

D) 4

D

**Q14- Consider reaction: S(s) + O₂(g) → SO₂. state of SO₂ in this reaction is**

A) Liquid

B) Solid

C) Gaseous

D) All Three

C

**Q15- Consider reaction: P(s) + O₂(g) → P₄O₁₀(s). Moles of O₂(g) needed to balance equation will be**

A) 1

B) 3

C) 5

D) 7

C

**Q16- Consider reaction: Na(s) + O₂(g) → Na₂O. Moles of oxygen needed to balance equation are**

A) 1

B) 2

C) 3

D) 4

A

**Q17- Consider reaction: Al(s) + O₂ (g) → Al₂O₃. Moles of Al(s) needed to balance equation are**

A) 1

B) 2

C) 3

D) 4

D

**Q18- Which one of the given processes involves chemical reactions?**

A) Storing of oxygen gas under pressure in a gas cylinder

B) Keeping petrol in a China dish in the open

C) Liquefaction of air

D) Heating copper wire in the presence of air at high temperature

D

**Q19- In which of the given chemical equations, the abbreviations represent the correct states of the reactants and products involved at reaction temperature?**

A) 2H₂ (l) + O₂ (l) → 2H₂O (g)

B) 2H₂ (g) + O₂ (l) → 2H₂O (g)

C) 2H₂ (g) + O₂ (g) → 2H₂O (l)

D) 2H₂ (g) + O₂ (g) → 2H₂O (g)

C

**Q20- The reaction in which two compounds exchange their ions to form two new compounds is called**

A) Displacement reaction

B) Combination reaction

C) Double displacement reaction

D) Redox reaction

C

**Q21- On immersing an iron nail in CuSO₄ solution for a few minutes, you will observe**

A) No reaction takes place

B) The color of solution fades away

C) The surface of iron nails acquire a black coating

D) The color of solution changes to green

D

**Q22- Which of the given statements is not a 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)

D

**Q23- An element X on exposure to moist air turns reddish-brown and a new compound Y is formed. The substances X and Y are**

A) X = Fe, Y = Fe₂O₃

B) X = Ag, Y = Ag₂S

C) X = Cu, Y = CuO

D) X = Al, Y = Al₂O₃

A

**Q24- The reaction of H₂ 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.

A

**Q25- Rancidity can be prevented by**

A) Adding antioxidants

B) Storing food away from light

C) Keeping food in refrigerator

D) All of these

D

**Q26- In which of the given, heat energy will be evolved?**

A) Electrolysis of water

B) Dissolution of NH₄Cl in water

C) Burning of L.P.G.

D) Decomposition of AgBr in the presence of sunlight

C

**Q27- 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 colorless and odourless gas is evolved

D

**Q28- Consider reaction is an example of**

**(a) 4NH₃ (g) + 5O₂ (g) → 4NO (g) + 6H₂O (g) (a). Displacement reaction,**

**(b) Combination reaction**

**(c) Redox reaction**

**(d) Neutralization reaction.**

A) (A) & (D)

B) (B) & (C)

C) (A) & (C)

D) (C) & (D)

C

**Q29- Which of the following statements about the given reaction are correct? 3Fe(s) + 4H₂O(g) → Fe₃O₄ (s) + 4H₂ (g)**

**(a) Iron metal is getting oxidized.**

**(b) Water is getting reduced.**

**(c) Water is acting as reducing agent.**

**(d)Water is acting as oxidizing agent.**

A) (A), (B) & (C)

B) (C) & (D)

C) (A), (B) & (D)

D) (B) & (D)

C

**Q30- Which of the following are exothermic processes?**

**(a) Reaction of water with quick lime**

**(b) Dilution of an acid**

**(c) Evaporation of water**

**(d) Sublimation of camphor (crystals)**

A) (A) & (B)

B) (B) & (C)

C) (A) & (D)

D) (C) & (D)

A

**Q31- A dilute ferrous sulphate solution was gradually added to the beaker containing acidified permanganate solution. The light purple color of the solution fades and finally disappears. Which of the given equation is the correct explanation for the observation?**

A) KMnO₄ is an oxidizing agent, it oxidizes FeSO₄

B) FeSO₄ acts as an oxidizing agent and oxidizes KMnO₄

C) The color disappears due to dilution, no reaction is involved

D) KMnO₄ is an unstable compound and decomposes in the presence of FeSO₄ to a colourless compound

A

**Q32- Which among the following statement(s) is /are true? Exposure of silver chloride to sunlight for a long duration turns grey due to-**

**(a) The formation of silver by decomposition of silver chloride.**

**(b) Sublimation of silver chloride.**

**(c) Decomposition of chlorine gas from silver chloride.**

**(d) Oxidation of silver chloride.**

A) Only (A)

B) (A) & (C)

C) (B) & (C)

D) Only (D)

A

**Q33- Solid calcium Oxide reacts vigorously with water to form calcium hydroxide accompanied by liberation of heat. This process is called slaking of lime. Calcium hydroxide dissolves in water to form its solution called lime water. Which among the following is are true about slaking of lime and the solution formed?**

**(a) It is an endothermic reaction.**

**(b) It is exothermic reaction.**

**(c) The pH of the resulting solution will be more than seven.**

**(d) The pH of the resulting solution will be less than seven.**

A) (A) & (B)

B) (B) & (C)

C) (A) & (D)

D) (C) & (D)

B

**Q34- 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?**

**(a) Displacement reaction**

**(b) Precipitation reaction**

**(c) Combination reaction**

**(d) Double displacement reaction**

A) Only (A)

B) Only (B)

C) Only (D)

D) (B) & (D)

D

**Q35- Which of the following is (are) an endothermic process(es)?**

**(a) Dilution of sulphuric acid**

**(b) Sublimation of dry ice**

**(c) Condensation of water vapours**

**(d) Evaporation of water**

A) Both (A) & (C)

B) Only (B)

C) Only (C)

D) Both (B) & (D)

D

**Q36- 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 given can be used in place of lead nitrate?**

A) Lead sulphate (insoluble)

B) Lead acetate

C) Ammonium nitrate

D) Potassium sulphate

B

**Q37- Which of the given gases can be used for storage of fresh sample of an oil for a long time?**

A) Carbon dioxide or oxygen

B) Nitrogen or oxygen

C) Carbon dioxide or helium

D) Helium or nitrogen

B

**Q38- Fatty foods become rancid due to the process of \_\_\_\_\_\_\_\_**

A) Oxidation

B) Corrosion

C) Reduction

D) Hydrogenation

A

**Q39- 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

D

**Q40- The chemical formula of lead sulphate is**

A) Pb₂SO₄

B) Pb(SO₄)₂

C) PbSO₄

D) Pb₂(SO₄)₃

C

**Q41- Chemically, rust is**

A) Hydrated ferrous

B) Only ferric oxide

C) Hydrated ferric oxide

D) None of these

D

**Q42- Both CO₂ and H₂ gases are**

A) Heavier than air

B) Colourless

C) Acidic in nature

D) Soluble in water

B

**Q43- Which of the given gases can be used for storage of fresh samples of an oil for a long time?**

A) Carbon dioxide or oxygen

B) Nitrogen or helium

C) Helium or oxygen

D) Nitrogen or oxygen

B

**Q44- 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

D

**Q45- 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

C

**Q46- Silver article turns black when kept in the open for a few days due to formation of**

A) H₂S

B) AgS

C) AgSO₄

D) Ag₂S

D

**Q47- 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

B

**Q48- Which of the given products is formed when calcium oxide reacts with water?**

A) Slaked lime

B) Carbon dioxide

C) Calcium oxide

D) Oxygen gas

A

**Q49- What is the other name for quick lime?**

A) Calcium hydroxide

B) Calcium oxide

C) Carbon dioxide

D) Sodium oxide

B

**Q50- What is the chemical name for slaked lime?**

A) Calcium carbonate

B) Calcium oxide

C) Calcium hydroxide

D) Carbon monoxide

C