Doon Public School Bhuj

Class: X

Science

Topic: Chemical reactions and equations

1) When a burning candle was brought close to a test tube containing an unknown gas, candle flame get exhausted. The unknown gas must be
   (a) Hydrogen (b) Nitrogen (c) Oxygen (d) Carbon monoxide
2) 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
3) A student placed a strip of copper in a beaker filled with zinc sulphate solution. Next day he will observe, that the
   (a) Colour of solution changed to blue. (b) Copper strip became thinner
   (c) Copper strip became thicker. (d) Copper strip remained unchanged
4) When a burning candle was brought close to a test tube containing an unknown gas, a pop sound was produced. The unknown gas must be
   (a) Hydrogen (b) Nitrogen (c) Oxygen (d) Carbon monoxide
5) 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)
6) Oxidation is a process which involves
   (a) addition of oxygen
   (b) addition of hydrogen
   (c) removal of oxygen
   (d) removal of nitrogen
7) Give the ratio in which hydrogen and oxygen are present in water by volume.
   (a) 1:2
   (b) 1:1
   (c) 2:1
   (d) 1:8
8) When Ag is exposed to air it gets a black coating of
   (a) AgNO3
   (b) Ag2S
   (c) Ag2O
   (d) Ag2CO3
9) 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
10) 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

   ANSWERS: - 1) –(d), 2) –(a), 3) – (d), 4) – (a), 5) – (a), 6) - (a), 7) –(a), 8) – (b), 9) – (b), 10) – (b)
11) What do you understand by the term 'Rancidity'? (1 mark)
12) Select the oxidizing agent for the following reaction:
   $H_2S + I_2 > 2HI + S$. (1 mark)
13) Define the term 'antioxidant', with an example(1 mark)
14) Most of the chemicals in a laboratory are kept in transparent bottles but silver chloride is kept in dark bottle. Why? (1mark)
15) Write equation for following chemical reaction
   When $S0_2$ gas is passed through saturated solution of H_2S (1mark)

16) Write the type of chemical reaction represented by the following equations. And define each reaction.
   (i) 2Al(s) +6HCl(aq → 2AlCl3(aq) + 3H2(g)
   (ii) 2KBr (aq) +Cl2 (g) → 2KCl (g) + Br2 (g)
   (iii) 2Zn(s) +O2 (g) → 2ZnO(S) (3 marks)
17) What is reduction reaction? Identify the substances that are oxidized and the substances that are reduced in the following reactions:

i) $Fe_2O + 2 Al \rightarrow Al_2O_3$

ii) $2PbO + C \rightarrow 2Pb + CO_2$(3 marks)

18) I) A solution of a substance 'X' is used for white washing.

(a) Name the substance 'X' and write its formula.

(b) Write the reaction of the substance 'X' named in (a) above with water.

II) Why should magnesium ribbon be cleaned before burning in air?

(3 marks)

19) With an example list three information which make the chemical equations more useful. (3 marks)

20) State the type of chemical reations and equations take place during following

(a) Magnesium wire burn in air

(b) Electric current pass through the water

(c) Ammonia and hydrogen chloride gases are mixed (3 marks)

21) Write the type of chemical reaction represented by the following and define each reaction equations..

(i) $2Al(s) + 6HCl(aq) \rightarrow 2AlCl_3(aq) + 3H_2(g)$

(ii) $2KBr(aq) + Cl_2(g) \rightarrow 2KCl(g) + Br_2(g)$

(iii) $2Zn(s) + O_2(g) \rightarrow 2ZnO(S)$ (5 marks)

Note: From question Number 11 to 21 to be solved by your own in the Science Notebook