DAILY HOMEWORK

CHEMISTRY

CLASS-X

FM-20

CHEMICAL REACTIONS AND EQUATIONS

Questions Carries 1 mark

1.Which of these is the formula of Rust?

(a) FeO

(b) Fe_2O

(c)Fe_2O_2

(d)Fe_2O_3

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. Which of the following statements about the given reaction are correct?

3Fe (s) + 4H2O (g) → Fe3O4 (s) + 4 H2 (g)

(i) Iron metal is getting oxidised

(ii) Water is getting reduced

(iii) Water is acting as reducing agent

(iv) Water is acting as oxidising agent

(a) (i), (zi) and (iii)

(b) (in) and (iv)

(c) (i), (ii) and (iv)

(d) (ii) and (iv

4. 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)

5. Oxidation is a process which involves

(a) addition of oxygen

(b) addition of hydrogen

(c) removal of oxygen

(d) removal of hydrogen

6. The process of reduction involves

(a) addition of oxygen

(b) addition of hydrogen

(c) removal of oxygen

(d) removal of hydrogen

7. Three beakers labelled as A, B and C each containing 25 ml of water were taken. A small amount of NaOH, anhydrous CuSO4 and NaCl were added to the beakers A, B and C respectively. It was observed that there was an increase in the temperature of the solution contained in beakers A and B, whereas in case of beaker C, the temperature of the solution falls. Which one of the following statements(s)is (are) correct?

(i) In beakers A and B, exothermic process has occurred.

(ii) In beakers A and B, endothermic process has occurred.

(iii) In beaker C exothermic process has occurred.

(iv) In beaker C endothermic process has occurred.

(a) (i) only

(b) (ii) only

(c) (i) and (iv)

(d) (iv), (ii) and (iii)

8. 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

9. Which among the following statement(s) is (are) true?

Exposure of silver chloride to sunlight for a long duration turns grey due to

(i) the formation of silver by decomposition of silver chloride

(ii) sublimation of silver chloride

(iii decomposition of chlorine gas from silver chloride

(iv) oxidation of silver chloride

(a) (i) only

(b) (i) and (iii)

(c) (ii) and (iii)

(d) (iv) only

10. $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$

Identify the substance oxidized in the above. equation.

(a) $MnCl_2$

(b) HCl

(c) H_2O

(d) MnO_2

11. 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) $Ca(OH)_2$

(c) CaO

(d) $CaCO_3$

12. 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

13. 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

14. 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

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

(a) Displacement

(b) Combination

(c) Decomposition

(d) Double displacement

Fill in the Blanks

1. The addition of oxygen to a substance is called ……. whereas removal of oxygen is called …….

2. The addition of hydrogen to a substance is called ……. whereas removal of hydrogen is called …….

3. Precipitation reactions produce insoluble …….

4. Reactions in which energy is given out are known as …….

5. Reaction in which an element displaces another element from its compound is called …….