KRISHNAGAR ACADEMY

Half Yearly Examinations Phase II
Class: IX
Subject: Chemistry

FM 50

Q1. Write the molecular formula:- (1x10 = 10)

a. Ammonium acetate
b. Barium peroxide
c. Cupric hydroxide
d. Zinc nitrate
e. Stannic sulphite
e. Nickel silicate
g. Plumbic Oxide
h. Aluminium borate
i. Manganese oxalate
j. Calcium hypochlorite

Q2. Determine the molecular weight :- (1x5 = 5)

a. $(NH_4)_2Cr_2O_7$
b. $FeSO_4.7H_2O$
c. $Na_2B_4O_7.\ 10\ H_2O$
d. C_3H_7COONa
e. H_4SiO_4

[Given atomic masses: - N=14, H= 1, Cr= 52, o= 16, Si=28, C=12, Na= 23, Fe= 56, S= 32, B= 11]

3 i) Determine the percentage composition of all the elements present in urea, $CO(NH_2)_2$.
[Atomic masses:- C=12, N=14,H=1]

ii). Which acid has better hydrogen content between Sulphuric acid and phosphoric acid?
[Atomic masses:- H=1, S=32, O= 16, P=31] (3+2)

Q4. Balance the following chemical equations: - (1X10=10)

a. $BF_3 + Li_2SO_3 \rightarrow B_2(SO_3)_3 + LiF$
b. $C_2H_6 + O_2 \rightarrow CO_2 + H_2O$
c. $K_2Cr_2O_7 + H_2So_4 \rightarrow K_2SO4 + Cr_2(SO_4)_3 + H_2O + O_2$
d. $FeS_2 + O_2 \rightarrow Fe_2O_3 + SO_2$
e. $Cl_2 + SO_2 + H_2O \rightarrow H_2SO_4 + HCl$
f. $Ca(OH)_2 + H_3PO_4 \rightarrow Ca_3(PO_4)_2 + H_2O$
g. $S_8 + F_2 \rightarrow SF_6$
h. $KMnO_4 + HCl \rightarrow KCl + MnCl_2 + H_2O + Cl_2$
i. $NH_3 + Cl_2 \rightarrow N_2 + NH_4Cl$
j. $PbO + NH_3 \rightarrow Pb + H_2O + N_2$

5. Give balanced equations :- (1X10 = 10)

a. Electrochemical decomposition
b. Photochemical decomposition
c. Thermal dissociation
d. Synthesis
e. precipitation
f. Neutralisation reaction
g. Endothermic reaction
h. Exothermic reaction
i. Simple Displacement
j. Decomposition reaction of carbonate salt.

6. Explain :- (5X1=5)

a. Boiled water tastes flat.
b. Table salt gets sticky during rainy season.
c. Solubility increases on boiling an aqueous solution.
d. Distilled Water can’t be kept in a sealed bottle for a long time.
e. Water is known as a Universal solvent.

7. Define the following with suitable examples :- (5X1=5)

a. Deliquescent Salt

b. Efflorescent Substance

c. Hygroscopic Substance

d. Dehydrating agent

e. Water of Crystallisation.