**HRA INTERNATIONAL SCHOOL,GURDASPUR**

**CLASS:X TIME:2HOUR**

**SUBJECT:CHEMISTRY M.M:80**

**PART-A**

**1.Complete the following sentences choosing the correct word or wordsfrom those given in brackets at the end of each subject. [5]**

**a)The properties of elements are the periodic function of their\_\_\_\_\_\_\_(atomic number,mass number,relative atomic mass)**

**b)Moving across a \_\_\_\_\_\_\_ of the periodic table the elements show in increasing \_\_\_\_\_\_\_character(group,period,metallic,non-metallic).**

**c)The element at the bottom of the group would be expected to show \_\_\_\_\_\_\_metallic character than the element at the top(less,more)**

**d)The similarities in the properties of the group of elementsare because they have the same \_\_\_\_\_\_\_(electronic configuration,number of outer electrons,atomic number)**

**e)If the element is in group 17 ,it is likely to be \_\_\_\_\_\_\_(metallic,non-metallic)in character ,while which one electron in its outermost energy level ,then it is likely to be\_\_\_\_\_\_(metallic,non-metallic).**

**2.Give two example of each following:[5]**

**a)oxy-acid b)hydracids c)monobasic acid d)dibasic acid e)tribasic acid**

**3.What do you understand by the following:[5]**

**a)analysis b)Qualitative anaylsis c)Quantitative analysis d)Reagent e)precipitation**

**4.Name : [5]**

**a)a salt which is weak electrolyte.**

**b)a base which is a weak electrolyte.**

**c)an inert electrolyte and an active electrolyte.**

**d)a positively charged non metallic ion.**

**e)the electrolyte in which reduction occur.**

5.Correct the following : [5]

a)A reddish brown precipitate is obtained when ammonium hydroxide is added to ferrous sulphate.

b)Liquid ammonia is a solution of NH3.

c)Finally divided platinum is used in habber process.

d)Conc.sulphuric acid is a drying agent of NH3.

e)Ammonium salts on heating decomposes to give ammonia.

6.Draw the structural for each of the following compounds:[5]

a)isomer of n-butane b)vinegar c)2-propanol d)ethanol e)acetone

7.Name oforganic compound which is:[5]

a)used for illuminating country houses,

b)called wood spirit,

c)poisonous and contain OH group,

d)consumed as a drink,

e)made grom water gas.

8.Name the element which has:[5]

a)two shells, both of which are completely filled with electrons?

b)the electronic configuration 2,8,3

c)a total of three shells with five electrons in its valence shells?

d)a total of four with two electrons in its valence shells?

e)twice as many electrons in its second shell as in its first shell?

PART-B

9.(i)Which element from has the highest ionisation energy?Explain [6]

a)P,Na and Cl b)F,O,Ne c)Ne,He,Ar.

(ii)Name: [4]

a)an alkali metal in period 3 and halogen in period 2.

b)the noble gas with three shells.

c)the non-metal present in period 2 and metals in period 3.

d)the element of period 3 with valency4.

10.(i)Write balanced equations.

a) when butane is burnt in oxygen,

b)preparation of ethylene from ethyl alcohol.[2]

(ii)a)convert ethane to acetic acid,

b)convert acetylene to ethane,

c)convert acetic acid to ethyl alcohol,

d)convert acetic acid to ethyl acetate[4]

(iii)a)Draw the structural formula of the isomers of butane.Give the correct IUPAC name of each isomer.

b)state two use of acetylene.[4]

11.(i)Give one example in each case:

a)a basic oxide which is soluble in water,

b)a hydroxide which is highly soluble in water,

c)a basic oxide which is soluble in water,

d)a hydroxide which is insoluble in water,

e)a weak mineral acid,

f)a base which is not an alkali,

g)an oxide which isa base. [7]

(ii)What happen when ammonia solution is added first dropwise and then in excess to the following solutions:

a)CuSO4 B)ZnSO4 c)FeCl3 [3]

12.(i)Give the trend in atomic size on moving :

a)down the group,

b)across the period left to right.[2]

(ii)State the trend in chemical reactivity:

a)across the period left to right,

b)down the group.[2]

(iii)Distinguish by adding;

a)sodium hydroxide solution and

b)ammonium hydroxide solution to

1.calcium salt solution and lead salt solution.

2.lead salt solution and zinc salt solution.

3.copper salt solution and ferrous salt solution.[6]