FUSCO'S SCHOOL (ICSE)

Indiranagar, Bangalore

Half Yearly Examination 2016-17

Subject :Chemistry

Class: VIII Marks:80

SECTION-I [40 marks]

Question-I

1. Name the following. [8]

a. Fundamental particles present inside the nucleus.
b. Particle that does not have charge.
c. An unbalanced equation.
d. The arrangement of electrons around the nucleus
e. Elements are having more than one valency.
f. Highly penetrating radiations.
g. A short form of an element.
h. A group of atoms of element having charge on it.

2. Write the name of the following elements. [10]

a. $KClO_3$
b. $Mg(HCO_3)_2$
c. $Cr_2(SO_4)_3$
d. Ca_3N_2
e. $NaAlO_2$
f. $(NH_4)_2SO_4$
g. $[Cu(NH_3)_4]SO4$
h. $CaSiO_3$
i. $MnCl_2$
j. $NaNO_2$

3.

a. Explain the term chemical equation. What is meant by reactants and products? [3]

b. All the chemical equations all balanced to comply with_____. [1]

c. Define Alpha, Beta and Gamma rays. and write the atomic numbers , mass numbers of Th and Pa. [5]

$$^{238}U_{92} \xrightarrow{\text{alpha rays}} \text{Th} \xrightarrow{\text{beta rays}} \text{Pa}$$

d. How do solids ,liquids and gases differ with reference to inter particle space and inter particle attraction. [3]

4. Answer these in one or two sentences. [10]

a. How are energy shells or levels represented?
b. Define mass number.
c. What are isotopes?
d. Write any two harmful effects of radioactive radiations.
e. Explain the term chemical formula.

SECTION –II [40 MARKS]

Question -II

a. Write any three properties of each protons, electrons and neutrons. [6]

b. State the variable valencies of the following elements and give their names. Ex. Cu^{+1}- cuprous Cu^{+2} - cupric . [3]

i. Sn ii. Pb iii. Fe

c. Name any few non-reactive gases. [1]

Question – III

a. Write balanced equations for the word equations. **[8]**

1. Potassium nitrate $\longrightarrow$ potassium nitrate +oxygen
2. Aluminium + oxygen $\longrightarrow$ aluminium oxide
3. Iron + hydrochloric acid $\longrightarrow$ ferrous chloride + hydrogen
4. Water $\xrightarrow{\text{electrolysis}}$ hydrogen + oxygen

b. Balance the following equations. **[5]**

1. $NH_3 + O_2 \longrightarrow N_2 + H_2O$
2. $S + HNO_3(conc.) \longrightarrow H_2SO_4 + H_2O + NO_2$
3. $CaO + HCl \longrightarrow CaCl_2 + H_2O$
4. $H_2S + Cl_2 \longrightarrow S + HCl$
5. $Mg + CO_2 \longrightarrow MgO + C$

Question –IV

1. Give reasons for the following. **[8]**

a. Solids, liquids and gases are considered as matter but light is not.

b. On heating a sublimable solid in the particle attraction is overcome.

c. Why are gamma rays not affected by either electric or magnetic field?

d. Why only few elements do shows radioactivity?

Question –V

1. Answer the following questions.

a. Explain the postulates and draw backs of Rutherford's atomic theory. **[3]**

b. Define nuclear fission. And mention any three uses of radioactive subsatances. **[3]**

c. Write the electronic configurations of the following elements. **[3]**

i.Neon ii. Oxygen iii.Sulpur