MAR THOMA RESIDENTIAL SCHOOL, THIRUVALLA
SECOND TERMINAL EXAMINATION
STD VII
CHEMISTRY

Marks 80
Time 2 h

SECTION 1

Question 1

I. Fill in the blanks.

1. The substances formed as a result of chemical change are called_____.
2. In modern periodic table the elements are arranged in increasing order of their_____
3. Elements having valency two are called_____ elements.
4. The outermost orbit of an atom cannot have more than _____ electrons.
5. _____ is the Latin name of lead.
6._____ is a monoatomic molecule.

II.Correct the following statements. (6)

1. The shell closest to the nucleus of an atom is called valence shell.
2. The symbol of the element sodium is 'So'.
3. The number of atoms in one molecule of oxygen is 3.
4. Sodium carbonate is known as baking soda.
5. The formula of the oxide of aluminium is Al_3O_2.

(5)

III.Answer the following

1.What do you observe when silver nitrate solution is mixed with sodium chloride Solution? Write its equation. (3)
2. Differentiate between cation and anion. (1)
3. What is a solvent? Name two solvents other than water. (2)

IV. Give reasons for the following.

1 The nucleus in an atom is positively charged.
2. When a small piece of quick lime is placed in water, the water becomes very hot.
3. Atoms are electrically neutral..
4. Atomicity of hydrogen is 2.

(8)

V. Classify the following as

1. Elements and compounds
   1. Sugar 2.Sodium 3.Calcium carbonate4.Oxygen 5.Common salt 6.Iron (3)
2. Homogeneous mixtures and heterogeneous mixtures.
   1. Soil 2.A mixture of charcoal and Sand 3.Milk 4.Oil and water 5.Salt solution 6. Ice cream. (3)
3. Metals and non-metals
   1. Zinc 2.Phophorus 3.Mercury 4.Carbon 5.Sodium 6.Iodine (3)

VI. Define the following.

1. Atomic number2.Eectronic configuration 3.Metalloids 4.Fractional dis
5. Atom 6. Radical

SECTION II

Question 2

1. What is variable valency? Name the kinds of valency in metals and non-
2. A.What are noble gases?
   b. Give the names and symbols of noble gases.
3. a. What is a chemical equation?
   b. Sodium reacts with cold water to give sodium hydroxide and hydroge reaction by means of a balanced chemical equation.

Question 3

1. Write the number of atoms of each element in the molecules of the follow compounds.
   1.K_2CO_3 2.$AlCl_3$ 3. $Pb(NO_3)_2$
2. What is meant by formula of a compound?
3. What is an exothermic reaction?
4. What is sublimation? Name two subliming substances.
5. Write the formula and valencies of the following radicals..
   1. Ammonium 2.Bisulphate 3.Phosphite 4. Sulphite.

Question 4

1. State the law of conservation of mass.
2. Balance the following equations
   1. $P + O_2 \longrightarrow P_2O_5$
   2. $KHCO_3 \longrightarrow K_2CO_3 + H_2O + CO_2$
   3. $Al + H_2SO_4 \longrightarrow Al_2(SO_4)_3 + H_2$
   4. $Fe_2O_3 + CO \longrightarrow Fe + CO_2$
   5. $FeSO_4 + NaOH \longrightarrow Na_2SO_4 + Fe(OH)_2$
3. Write the chemical formula of the following compounds.
   1. Sodium chloride 2.Calcium hydroxide 3. Copper (II) sulphate 4.Iron (III)

Question 5

1. Draw the diagram representing atomic structure of $^{23}_{11}Na$. Write the number each sub atomic particles and electronic configuration of the atom.
2. Write the chemical names of quick lime.
3. Draw, label and explain the method of separating common salt from salt sol
4. Write a chemical reaction which is characterised by change in state. Write its
5. Explain the formation of sodium chloride molecul