ANNUAL EXAMINATION – 2012-2013

Class – V I I I

SUBJECT – Chemistry

Time – 1½ Hrs.

M.M. – 80

Answer to this paper must be written on paper provided separately.
You will not be allowed to write during the first 15 minutes.
This time has to be spent in reading the question paper.
The time given at the head of this paper is the time allowed for writing the answers.
Section A is compulsory. Attempt any four questions from Section B.
The intended Marks for question or parts of questions are given in the brackets [ ].

Section – A (40 Marks)

Answer all questions

Question 1

A) Multiple choice question - [10]

i) Which of the following is a reducing agent?
a) Oxygen b) Chlorine
c) Hydrogen d) None of these

ii) The ores which are generally subjected to calcinations are -
a) Carbonates ores b) Oxide ore
c) Sulphide ores d) Chloride ore

iii) Thermal decomposition of a substance is brought about with the help of -
a) Reactants b) Water
c) Wind d) Heat

iv) Metals have a tendency to -
a) Lose electrons b) gain electrons
c) Share electrons d) None of these

v) Reduction is a chemical reaction in which there is -
a) Removal of Hydrogen b) Removal of oxygen
c) Addition of oxygen d) None of these

vi) Reduction reaction is the exact opposite of -
a) Displacement reaction b) Decomposition reaction
c) Oxidation reaction d) None of these

vii) A mixture of carbon monoxide and hydrogen is called -
a) Coal gas b) Water gas
c) Producer gas d) None of these

viii) Which of the following gas helps in extinguishing fire?
a) Oxygen b) Hydrogen
c) Carbon dioxide d) Helium

ix) Which of the following metals resists the passage of electric current?
a) Iron b) Copper
c) Mercury d) None of these

x) This metal reacts with oxygen at room temperature to form its oxide
a) Sodium b) Iron
c) Magnesium d) Gold

B) Answer the following questions - [5]

a) A metal which does not react with dilute acids.
b) Name two metals which can be cut with a knife.
c) Name two metals which does not react with water.
d) Name two metals which does react with steam displacing hydrogen.
e) Name a non-metal that exists as a liquid.

C) i) State the kind of reaction taking place in following cases - [3]

a) When acid and base react to form salt & water.
b) When two element reacts to form one new product.
c) When two soluble solution form insoluble substance.

ii) Write a balanced equation of the following - [6]

a) Iron reacts with dilute hydrochloric acid.
b) Sodium react with cold water.
c) Hydrochloric acid reacts with sodium hydroxide solution.

D) Fill in the blanks - [5]

a) Methane is also called _____ gas.
b) _____ fuels are derived from natural fuels.
c) _____ is considered as a strategic metal.
d) Steel is an alloy of _____.
e) To electrolyze pure water, _____ is added to initiate the ionization of water.

E) Give one word - [6]

a) A change in which substance undergo an irreversible change.

b) The process of converting vegetable oils into fats by treating them with hydrogen.

c) The process of removing gangue from an ore.

d) A process during which heat and light is given out.

e) A reaction in which more active metal displaces less active metal from its salt solution.

f) An acid formed when carbon dioxide dissolve in water.

F) Calculate the molecular mass - [3]

i) $Ca\ CO_3$ [Ca = 40, C = 12, O = 16]

ii) $Mg\ SO_4$ [Mg = 24, S = 32, O = 16]

iii) NaCl [Na = 23, Cl = 35.5]

G) Find out the amount of magnesium oxide formed if 30 g of magnesium is burnt in oxygen. [2]
[Mg = 24, O = 16]

Section – B [40 Marks]
Answer any four questions

Question 2

a) Write the composition, properties & uses of the following alloys - [6]

i) Bronze ii) Steel

b) Write the most important uses of followings - [4]

i) Oxygen ii) Nitrogen

iii) Tin iv) Carbon

Question 3

a) Write the chemical name & chemical formula - [3]

i) Rock salt ii) Bauxite iii) Haematite

b) Define the terms - [4]

i) Smelting ii) Ductility

c) Write a short note on noble metals. [3]

Question 4

a) What do you mean by Zone Refining? [3]

b) How is a strong electrolyte different from a weak electrolyte? [3]

c) Name the Ions present in electrolysis of sodium chloride. [1]

d) Write the equations for the reaction taking place at cathode and anode during the electrolysis of sodium chloride. [3]

Question 5

a) State the composition of Petroleum gas and write the main constituent of that gas. [2]

b) State the kind of change in following statement: [3]

i) Burning of coal liberates light and heat.

ii) Passing of an electric current through the filament in an electric bulb.

iii) Combining iron and sulphur to form Iron sulphide

iv) Breaking of a piece of chalk into small pieces.

v) Rusting of iron inpresence of moisture and atmospheric oxygen.

vi) Sublimation of substances on heating.

c) Answer the following questions regarding the electro-refining of copper metal - [5]

i) Name the material of Cathode –

ii) Name the material of anode –

iii) Name the electrolyte -

iv) Write the chemical equation taking place at –

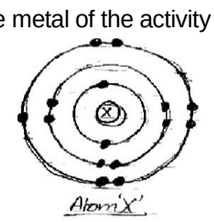
1- Cathode 2- Anode

Question 6

a) What are the conditions necessary for combustion? [3]

b) Define metal activity series. Name the most reactive metal & least reactive metal of the activity series? [3]

c) The diagram represents an atom X. Answer the following question: [4]



i) If atom 'X' has 7 electron in its outer shell, is it a metal or nonmetal?

ii) Will atom 'X' lose or gain electrons to become X^{1-}?

iii) How many electrons will 'X' lose or gain to become X^{1-}?

iv) Is atom 'X' a reducing agent or oxidizing agent?

Question 7

a) Define Biocatalyst. [2]

b) Give two examples of Biocatalyst? [1]

c) Give reasons for the following - [3]

i) Phosphorus is stored in water.

ii) Chlorine is used to sterilize water.

iii) Non electrolytes do not conduct electricity.

d) Draw a neat & clean diagram of electrolysis of acidified water. [4]