ANNUAL EXAMINATION – 2012-2013

Class – V 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. Answer 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 questions - [5]

i) Which of the following is not an indicator -

a) Methyl orange b) Phenolphthalein

c) Blue litmus d) Iron hydroxide

ii) Bases that contain a high percentage of the bases in solution are called -

a) Concentrated bases b) Strong bases

c) Weak bases d) Dilute bases

iii) The acid present in lemons is -

a) Citric acid b) Oxalic acid

c) Tannic acid d) Acetic acid

iv) On a PH scale, an acidic solution has a PH number -

a) Less than 7 b) Equal to 7

c) More than 7 d) None of these

v) Sticky substance formed when soap is added to hard water is called -

a) Lather b) Scales

c) Scum d) None of these

B) Fill in the blanks - [5]

a) _____ is the main pre-requisite for reducing the spread of water borne diseases.

b) Water dissolves many substance therefore it is a _____.

c) When a base is heated with an ammonium salt _____ gas is given off.

d) An acid consists of two parts _____ part and _____ part.

C) Give one word - [5]

a) Bases which are soluble in water.

b) Water that lathers with soap easily.

c) A group of atoms that carries a charge and acts as a single unit.

d) Reaction between an acid and a base to form salt and water.

e) Hardest substance used to cut glass and to drill rocks.

D- Circle the odd one out. Give reasons for your choice - [10]

a) Brass, Bronze, Mercury, Steel

b) NaOH, KOH, $Ca(OH)_2$, $Mg(OH)_2$

c) NaCl, NH_4Cl, $MgCl_2$, $NaHCO_3$

d) Cholera, Hepatitis A, Typhoid, Malaria

e) Evaporation, Condensation, Transpiration, Conduction

E- Write True or False - [5]

a) Alkale turn red litmus paper blue.

b) Basicity of calcium hydroxide is one.

c) Basic salts contain one or more replaceable hydrogen ions.

d) Permanent hardness of water can be removed by adding washing soda.

e) Water pipes sometimes burst during severe winters.

F- Write a balanced chemical equation for each of the reactions given below - [4]

a) Sodium reacts with dilute sulphuric acid.

b) Calcium oxide reacts with water.

G- Write the formula of chemical compound - [2]

a) Sodium hydroxide b) Nitric acid

c) Calcium carbonate d) Ammonium hydroxide

H- Complete the following equations and balance them - [4]

a) $Na_2CO_3 + HCl \longrightarrow$ _____ + _____

b) $KOH + HCl \longrightarrow$ _____ + _____

Section – B [40 Marks]

Answer any four questions

Question 2 Give two example for the following - [10]

a) Monobasic acid b) Dibasic acid

c) Monoacidic base d) Normal salt

e) Acid-base indicators

Question 3

a) What do you understand by basicity of an acid? [2]

b) Give an example of acid salt with its formula. [2]

c) Name and derive formula of three important inorganic acids. [3]

d) How is strong acid different from a concentrated one? [3]

Question 4

a) What is the importance of oxygen dissolved in water? [2]

b) Name two alkalis. [2]

c) What is anomalous expansion of water? [3]

d) Why is water conservation necessary? [3]

Question 5

a) Name two organic acid. [2]

b) How does washing soda remove hardness of water? [3]

c) What steps should be taken to avoid water borne disease? [5]

Question 6

a) Name two water borne disease. [2]

b) How can water be purified at home? [3]

c) Draw a well labelled diagram of the process of purification of water in the water works. [5]

Question 7

a) Give reasons for the following - [5]

i) Hard water is unfit for use in industries.

ii) We should not destroy forest.

iii) Pressure cooker should be used for cooking.

iv) Pickles are not stored in metal containers.

v) H_2CO_3 is a dibasic acid.

b) Find out the name and valency of the following radicals - [5]

Name of Radical	Representation of Radical	Valency of Radical
_____	$(NO_2)^{-1}$	_____
_____	$(SO_4)^{-2}$	_____
_____	$(OH)^{-}$	_____
_____	$(NH_4)^{+}$	_____
_____	$(CO_3)^{-2}$	