GREENLAWNS SCHOOL, WORLI

TERMINAL EXAMINATION: 2017-18

CHEMISTRY

Std: VIII Marks: 80

Date: / /2017 Time: 2 hrs

Answer to this paper must be written on the answer booklet provided to you.
The first 10 minutes are 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. All questions are compulsory.
Do not waste paper. Leave only one line after each answer.

I A) Name the following: [5]

i. Substances added to the catalyst to increase its efficiency.
ii. Number of times one atom of an element is heavier than the $^1/_{12}$ the mass of an atom of carbon.
iii. A shorthand form representing the result of a chemical change.
iv. A lustrous non-metal.
v. An adsorbent medium.

B) Define the following: [5]

i. Ionic bond
ii. Ion
iii. Displacement reaction
iv. Chemical change
v. Compounds

C) Give one chemical test for the following gases: [5]

i. H_2S
ii. O_2
iii. HCl
iv. SO_2
v. Cl_2

D) Write the molecular formula for the following compounds: [5]

i. Iron (III) sulphate
ii. Calcium sulphite
iii. Potassium dichromate
iv. Aluminium sulphide
v. Magnesium chloride

E) Draw the atomic structure of the following elements: [5]

i. $^{27}Al_{13}$
ii. $^{31}P_{15}$

F) Balance the following equations: [5]

i. $MnO_2 + HCl \rightarrow MnCl_2 + H_2O + Cl_2$
ii. $C + HNO_3 \rightarrow CO_2 + H_2O + NO_2$
iii. $Pb(OH)_2 + NaOH \rightarrow Na_2PbO_2 + H_2O$
iv. $Al + Cl_2 \rightarrow AlCl_3$
v. $NH_3 + O_2 \rightarrow NO + H_2O$

G) Give scientific reasons for the following: [5]

i. A chemical equation must be balanced.
ii. Addition of iron to acid is a chemical change.
iii. Carbon dioxide is a compound.
iv. Noble gases do not take part in chemical reaction.
v. Potassium reacts violently with water while gold does not react at all.

H) Match the elements A to E in List 1 with their valencies in List 2: [5]

List 1 (Elements)	List 2 (Valency)
i) Z = 7, A = 14	1) 0
ii) Electronic configuration: 2,8	2) +1
iii) Neutrons 14, electrons 13	3) +2
iv) Neutrons 20, protons 20	4) +3
v) Electronic configuration: 2,8,1	5) – 3

II A) What are isotopes? Name and draw the atomic structure of the isotopes of Hydrogen. [4]

B) What are amphoteric oxides? Give two examples. [2]

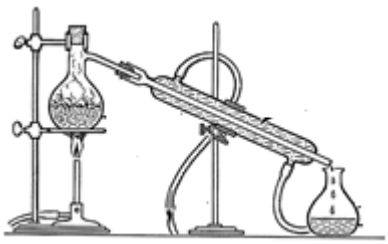
C) What is atomicity? Give two examples of polyatomic molecules. [2]

D) Classify into physical and chemical change: [2]

i. Sublimation of iodine
ii. Oxidation of food substances in body cells
iii. Bursting of crackers
iv. Water cycle

III A) Given below are two methods of separation of mixtures.

1



2

i. Identify the above two methods. [1]
ii. Name the kind of mixtures separated by these two methods. [2]
iii. State the principle used in the two techniques. [2]
iv. Give an example of each mixture separated by these two methods. [2]

B) What is a catalyst? Give an example of a chemical catalyst and a body catalyst. [3]

IV A) The following elements V to Z are given with their atomic numbers: [5]

$_{3}V$, $_{19}W$, $_{9}X$, $_{18}Y$, $_{6}Z$

State the electronic configuration of each and state whether they are metals, non-metals or inert gases.

B) Differentiate between the following: [3]

i. Thermal decomposition and thermal dissociation
ii. Cation and anion
iii. Sublimation and sedimentation

C) Match the scientists with their discoveries: [2]

Scientists	*Discoveries*
i. J.J.Thomson	a. Neutrons
ii. Lord Rutherford	b. Electrons
iii. James Chadwick	c. The cathode rays
iv. William Crookes	d. Atomic nucleus

V A) Balance the following word equations: [4]

i. Potassium bicarbonate → Potassium carbonate + Water + Carbon dioxide
ii. Calcium hydroxide+Ammonium chloride→Calcium chloride+Water+Ammonia

B) Classify the chemical reactions: [3]

i. $CaCO_3 \xrightarrow{\triangle} CaO + CO_2$
ii. $N_2 + 3H_2 \rightarrow 2NH_3 + \triangle T$
iii. $KNO_3 + H_2SO_4 \rightarrow HNO_3 + KHSO_4$

C) With the help of atomic orbital diagram show the formation of oxygen molecule. [2]

D) Give two examples of acidic oxides. [1]

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