GREENLAWNS SCHOOL, WORLI

FINAL EXAMINATION: 2016-17

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. The electrode connected to the positive terminal of the battery.
ii. An alloy in which one of the component metal is mercury.
iii. A metal in period 3 having valency 3.
iv. The acid used for removing ink stains.
v. Compounds containing carbon and hydrogen only.

B) Distinguish between the following pairs on the basis of the points given in the brackets: [5]

i. Acid salt and basic salt (meaning)
ii. Strong electrolyte and weak electrolyte (salt examples)
iii. Aluminium and iron (chief ore)
iv. Groups and periods (total number)
v. Respiration and burning (energy released)

C) Define the following: [5]

i. Transition metals
ii. Electroplating
iii. pH scale
iv. Malleability
v. Precipitation reaction

D) Match the column and write the correct pairs: [5]

i. Bronze	a. Al + Mg
ii. Solder	b. Al + Mg + Mn + Cu
iii. Magnalium	c. Cu + Zn
iv. Brass	d. Pb + Sn
v. Duralumin	e. Cu + Sn

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

i. Aluminium is used in making paints.
ii. Distilled water does not conduct electricity.
iii. KOH is considered a strong alkali, while ammonium hydroxide a weak alkali.
iv. Oxygen is used in welding and cutting of metals.
v. Noble gases do not form compounds easily.

F) Identify the type of reaction: [5]

i. $CaCO_3 \xrightarrow{\Delta} CaO + CO_2$
ii. $KNO_3 + H_2SO_4 \rightarrow K_2SO_4 + HNO_3$
iii. $Cl_2 + 2KBr \rightarrow 2KCl + Br_2$

iv. $2H_2 + O_2 \rightarrow 2H_2O + \Delta$

v. $3Fe + 4H_2O \rightleftarrows Fe_3O_4 + 4H_2$

G) Fill in the blanks from the words A to F given below: [5]

A: Decreases B: Increases C: Remains same

D: Increases by one E: Metallic F: Non-metallic

i. Across a period from left to right in the Modern Periodic table:
No. of electron shells _____; No. of valence electrons _____;
Electronegativity _____;
Character of elements changes from _____ to _____

ii. Down a group in the Modern Periodic table:
No. of electron shells _____; No. of valence electrons _____;
Electronegativity _____;
Character of elements changes from _____ to _____

H) Complete the following equations and balance them: [5]

i. $Zn + H_2SO_4 \rightarrow$ _____ + _____

ii. $MgCO_3 + H_2SO_4 \rightarrow$ _____ + _____ + _____

iii. $Na_2SO_3 + H_2SO_4 \rightarrow$ _____ + _____ + _____

iv. $ZnS + H_2SO_4 \rightarrow$ _____ + _____

v. $NaOH + H_2SO_4 \rightarrow$ _____ + _____

II A) In the electrolysis of copper sulphate solution –

i. Name the electrodes used. [1]

ii. What kind of electrodes are these? [1]

iii. Give the cathode and anode reaction. [2]

iv. What is the end result of this electrolysis? [1]

B) Draw a neat and labelled diagram of electroplating an article with nickel. [3]

C) Give reaction of thermal decomposition of a metallic oxide evolving oxygen. [2]
State why this method is not preferred for the laboratory preparation of oxygen.

III A) 'Neutralisation reactions form salts.'

i. Name two insoluble chloride salts. [2]

ii. Give equation for preparation of salts by direct combination. [1]

iii. Give one use of the salt – ammonium nitrate. [1]

iv. Give an example of a hydrated salt. [1]

B) Mention the group and the period of the following elements: [3]

i. Sulphur ii. Potassium iii. Argon

C) State whether the following reactions are oxidation or reduction: [2]

i. $Fe^{2+} - e^- \rightarrow Fe^{3+}$

ii. $Fe^{3+} + e^- \rightarrow Fe^{2+}$

iii. $CuO + H_2 \rightarrow Cu + H_2O$

iv. $2Cu + O_2 \rightarrow 2CuO$

IV A) In the extraction of metals from their ores:

i. Which is the first step of extraction? [1]
ii. Name the three methods by which the above step is carried out? [3]
iii. State the principle of any one of the method mentioned by you above. [1]

B) Identify the property of oxygen from the following statements: [3]

i. Rekindles a glowing splint.
ii. Vapour density is slightly more than air.
iii. No change in litmus test.

C) State Dobereiner's law of triads with a suitable example. [2]

V A) Give balanced chemical equations for the following statements: [3]

i. Alkalis react with ammonium salts to liberate ammonia gas.
ii. Laboratory preparation of oxygen from potassium chlorate.
iii. Dissolution of sodium oxide in water.

B) Identify the method and give an example of the following techniques: [3]

i. Coating of zinc on iron sheets.
ii. Coating of silicates baked on iron
iii. Coating of red lead oxide on iron

C) What is a catalyst? Give two examples. [2]

D) Complete the statement: Aqua regia contains 1 part of _____ and 3 parts of _____ [2]

*****