

GATITU SECONDARY SCHOOL, P.O. BOX 327 – 01030, GATUNDU.

FORM 2 CHEMISTRY END OF TERM 1 EXAMINATION. 2016.

NAME: \_\_\_\_\_ CLASS: \_\_\_\_\_ ADM: \_\_\_\_\_

INSTRUCTIONS.

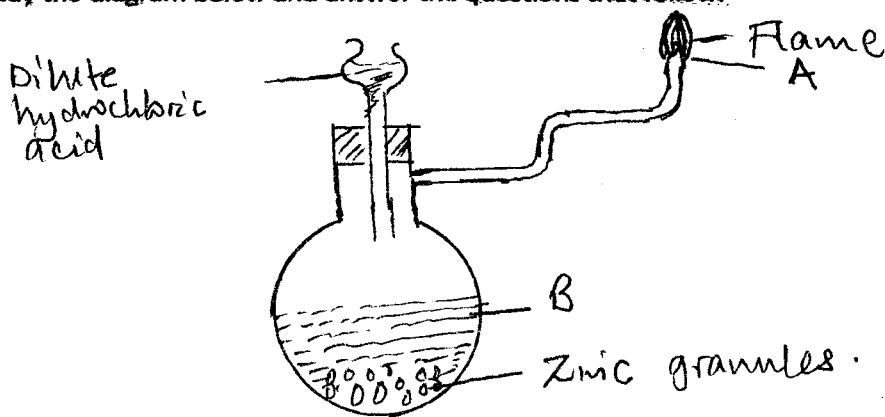
- i) Time: 2 hours
- ii) Write your name, class and adm. No in the spaces provided above.
- iii) All working **MUST** be shown where necessary.

1. State two differences between luminous and Non luminous.

LUMINOUS	NON – LUMINOUS

2. How would you obtain pure ammonium chloride from a mixture of lead sulphate and ammonium chloride. (3mks)

c) Study the diagram below and answer the questions that follow.



Write a word equation for the reaction occurring at point A and B. (2mks)

A: \_\_\_\_\_

B: \_\_\_\_\_

d) Soot is one of the environmental pollutants.

i) Explain the term pollutant (2mks)

ii) State how soot is formed from hydrocarbons. (2mks)

2. The table below shows the atomic numbers of elements of the periodic table represented by letters J to Q.

The letters are not the actual chemical symbols for the elements.

Element	J	K	L	M	N	P	O	Q
Atomic number	3	7	8	9	10	12	13	14

i) Select two elements which belong to:

I The same period of the periodic table (1mk)

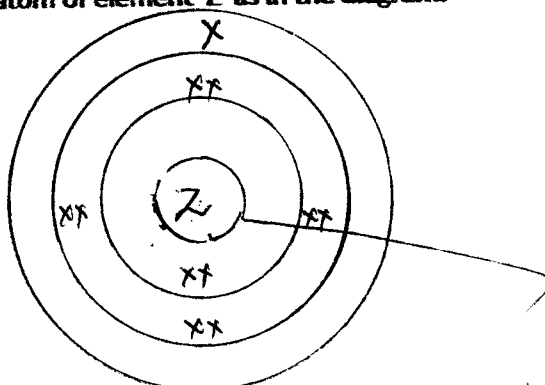
II The same group of the periodic table. (1mk)

ii) Select the element which:

I will form a divalent anion (1mk)

II Reacts most vigorously with water. (1mk)

3. A student represented an atom of element Z as in the diagram.



a) What is the atomic number of element Z? (3mks)

b) If element Z conducts electricity, state the particles responsible for electrical conductivity. (1mk)

c) Write the formulae of the most stable ion of Z. (1mk)

4. Study the information in the table below and answer the questions that follow. (The letters do not represent the actual symbols of the elements.)

Element	Electronic Configuration	Ionisation Energy KJmol <sup>-1</sup>
P	2.1	519
Q	2.8.1	494
R	2.8.8.1	418

i) What is the general name given to the group in which elements P, Q and R belong. (1mk)

ii) What is meant by ionization energy? (2mks)

iii) Explain why element P has the highest ionization energy. (2mks)

iv) When a piece of element Q is placed on water, it melts and hissing sound is produced as it moves on the surface of the water. Explain these observations. (3mks)

5. An oxide of element F has the formula  $F_2O_5$ . What is the valency of element F? (1mk)

b) In which group of the periodic table is element F. (1mk)

c) What are isotopes? (2mks)

d) Determine the number of neutrons in  $^{18}_8O$  (1mk)

What name is given to elements which appear in ;

i) Group 1

(4mks)

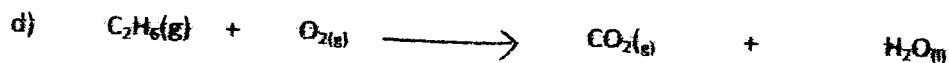
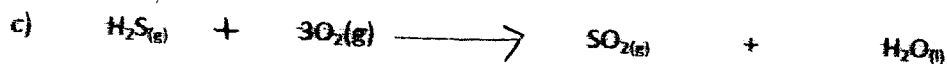
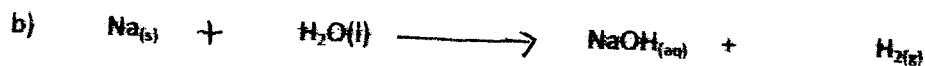
ii) Group II

iii) Group VII

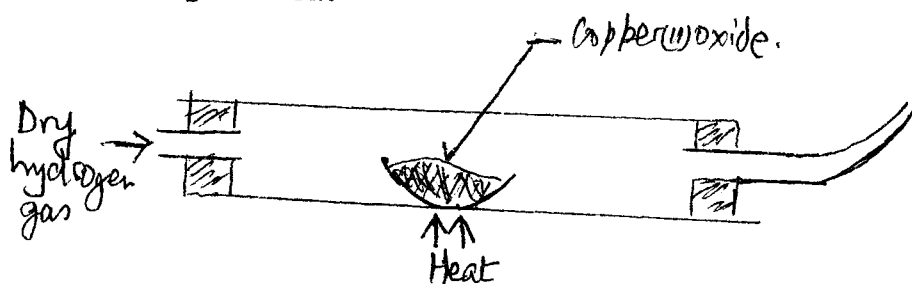
iv) Group VIII  
of the periodic table.

6. Balance the following equations.

(8mks)



7. In an experiment hydrogen gas was passed over heated copper (II) oxide as shown in the diagram below.



a) State the observations made in the combustion tube after the experiment. (2mks)

b) Write an equation for the reaction between copper(II) oxide and hydrogen gas. (2mks)

c) Explain why heat is necessary in this experiment.

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