

KIYALA HIGH SCHOOL
MID-TERM TWO ASSESSMENT TEST 2024
CHEMISTRY
S.2

Time: 2 Hours

INSTRUCTIONS:

- This paper consists of three assessment items.
- Section **A** has two *compulsory* item.
- Section **B** has *one* items
- Attempt *all the items* in both sections.
- Use of *illustrations* and *drawings* will earn you more scores.
- Any additional item answered will not be *scored*.

SECTION A

*Answer the **item** in this section*

Item 1

Cooks from Kiyala high school one day forgot a knife from outside the compound near the kitchen for a winter night, when they came the following morning, they found out that the knife was covered with a dark brown coating.



Task

As a chemistry learner;

- a) What chemical name is given to the reddish brown coating that was formed on the surface of the knife? **(2 scores)**

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- b) What conditions led to the formation of the dark brown coating. **(4 scores)**

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- c) How the reddish brown coating be stopped from appearing on mettles surfaces? Use the knowledge of chemistry. **(5 scores)**

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- d) State the advantages of the above process to the economy. **(4 scores)**

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Item 2

A student carried an experiment using two solutions **X** and **Y** and obtained the following results



X



Y

He also mixed the two solutions **X** and **Y** and decided to add three drops of universal indicator, the resultant solution turned to green.

Task

a) State the nature of;

i) Solution **X**

(1 score)

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ii) Solution **Y**

(1 score)

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b)

i) Give the name used for the reaction that occurred between solution **X** and **Y**.

(2 scores)

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ii) write a general word equation for the above reaction.

(1 score)

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c) Discuss the reaction of solution **X** with the following substances and in each case, write a general word equation.

i) Metals. (3 scores)

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ii) Metal oxides. (3 scores)

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iii) Metal carbonates. (3 scores)

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d) What are the uses of solution **X**. (3 scores)

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e) Discuss the applications of the type of reaction mentioned in **b (i)** above in everyday life.

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(3 scores)

SECTION B

Attempt the **item** in this section

Item 3

Oceans, lakes, rivers and seas serve as the source of water we use in our daily lives. However, water from these sources possess different properties and qualities. In addition to that human way life has greatly affected water quality which makes it unsuitable for use. So water must be made fit for use by application of some processes.



Task

- a) State how the purity of water can be tested. **(3 scores)**
- b)
 - i) Which chemical substance is used to test for the presence of water. **(2 scores)**
 - ii) State what is observed when the substance stated in **b (i)** above is treated with water. **(2 scores)**
- c) Write a list of human activities that have contributed to water pollution. **(4 scores)**
- d) What are the stages involved in water treatment? (list them in order). **(4 scores)**
- e) Pupils of Kiyala Primary School always complain that the borehole water they always use makes them use a lot of soap during washing. Okitioi a student of Kiyala High School then mentioned that this water is hard water.
 - i) Explain what Okitioi means by hard water. **(1 score)**
 - ii) How can this borehole water be made soft? **(4 scores)**

Compiled by Solomon