

NAME:.....SIGN:.....

545/1

Chemistry

Paper 1

2 hours



JINJA MODERN SENIOR SECONDARY SCHOOL

Uganda Certificate of Lower Secondary Education

End of Term II Examination 2023

S.3 Chemistry

Paper 1

2 Hours

INSTRUCTIONS:

- This paper has **three (3)** questions.
- Attempt **ALL** questions in this paper
- Use a neat handwriting to avoid loss of marks.

FOR EXAMINER USE ONLY

| QUESTION | MARKS |
|----------|-------|
| 1. | |
| 2. | |
| 3. | |
| TOTAL | |

Question 1

The human stomach contains hydrochloric acid with a pH of about 2. The acid helps to kill any germs in our stomach. However, when the stomach walls produce too much of the acid, we suffer from stomach pains and heartburn. One way to deal with this problem is to take an antacid. The main component of antacid is sodium hydrogen carbonate.



Task

- a) Explain how the antacid helps to cure heartburn. (06scores)
- b) Many locals advise their children suffering from heartburn to drink a lot of water. Explain why this too seems to work for them. (04 scores)

Question 2.

In Nakasongola, people make charcoal from burning wood. Jimmy has just migrated to Nakasongola and wants to make charcoal from wood like the rest of his neighbours. He piled pieces of wood, introduced fire underneath and left them to burn overnight. In the morning, he found a hip of ash with very little pieces of charcoal, not strong enough like what his neighbours make.



Task

As a friend to Jimmy who understands the process of charcoal making, write a letter to advise him on how to make charcoal. **(20 Scores)**

Question 3.

S.3 students of JMSS were given a variety of tasks to do from the lab. Their teacher, Mr. Bob Bonus required them to determine relative atomic masses of sodium hydroxide and hydrochloric acid. He then asked them to explain how sodium chloride could be prepared from sodium hydroxide and hydrochloric acid. Mr. Bob also asked for the electronic configuration of sodium and chlorine, the groups and periods of periodic table where they belong with respective reasons and the type of bond that occurs in sodium chloride. He later gave them an assignment to determine the name of a hydrocarbon containing 90% carbon and having molecular mass 40.

(C=12, H=1, O=16, Na=23, Cl=35.5, Atomic numbers of sodium and chlorine are 11 and 17 respectively)



Task

Assuming you joined any group in S.3 class, present your findings to your teacher. **(20 scores)**

END