

Student's Name:

Stream:

545/1 CHEMISTRY (Theory)

Paper 1

November 2022

1 hour

NAMUGONGO SECONDARY AND VOCATIONAL SCHOOL

END OF TERM 3

S.1 EXAMINATIONS

CHEMISTRY (THEORY)

Paper 1

1Hour 30minutes

INSTRUCTIONS:

- ✓ This paper consists of **two sections** questions **A** and **B**.
- ✓ Attempt all questions
- ✓ Answer **all** questions of **section A** in the spaces provided, **section B** in the answer sheet provided.
- ✓ Illustrations in form of drawings should be made where necessary, with a sharp pencil.

SECTION A

1. Chemistry is one of the most prestigious science subjects studied at the secondary level of Education. When you study chemistry, you not only acquire knowledge about many chemical reactions and other substances, but you can also take up various careers after school.



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- (a) Give a brief description of the meaning of the term chemistry. (02 marks)

.....
.....

- (b) Identify any three careers that you can take up through studying chemistry. (03 marks)

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2. In Chemistry, chemical experiments require a special room for carrying them out, although some experiments may be done outside in an open place. This place is called a laboratory. It is however important that utmost caution is taken while in the laboratory to ensure safety for everyone carrying out the experiment.

The figure below shows unsafe behaviour from learners in a chemistry laboratory. Study it and answer the questions that follow.



- a) Identify any three unsafe behaviour exhibited by the students in the figure? (03 marks)

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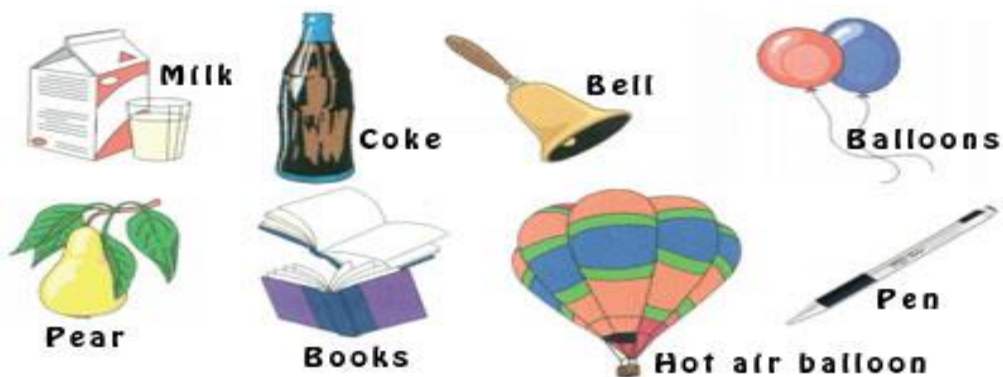
- b) Did any of the learners take precaution while in the laboratory? Identify any two precautions taken if any? (02 marks)

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3. Your natural surrounding is made up of very many different objects that occur in different forms. You can detect or feel the presence of these objects or anything around you when you see, hear, smell, touch and taste them. For example at home you see the chairs, cups, smoke from the kitchen, water, book, pen and many other items.



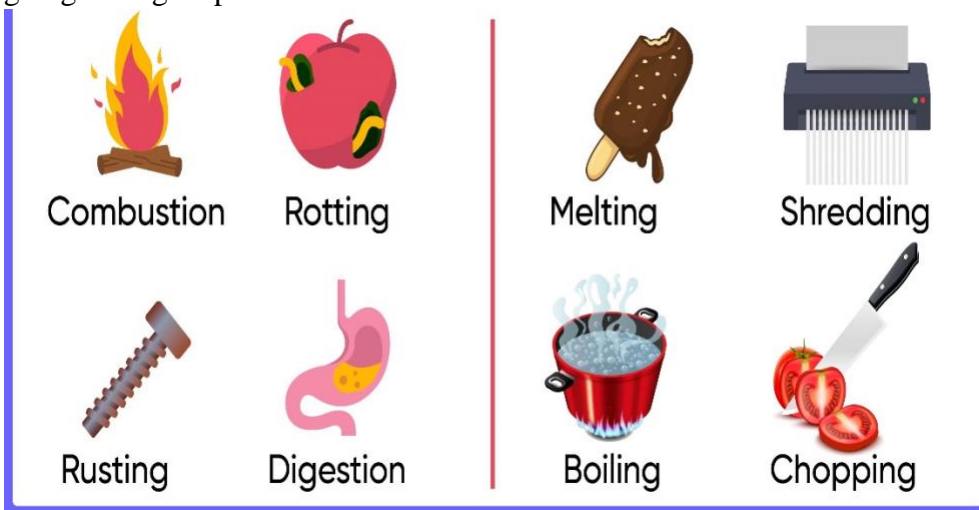
(a) What do you think is the scientific term or name given to all these things around us? (01 mark)

.....

(b) Under what states do all these things that surround us exist? (04 marks)

- (i)
- (ii)
- (iii)
- (iv)

4. Everyday you experience changes in things around you. Think of growth from childhood to adulthood, boiling of an egg, freezing of water, digestion of food, rotting of jackfruit, rusting of iron and many others. All these involve matter going through a process that can either be reversible or irreversible.



(a) State the two types of changes undergone by matter. (02 marks)

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- (b) State **three** differences between the two types changes in matter you have mentioned above. (03 marks)

- (c) Name the type of change that occurs when (05 marks)

- A bean seed germinates.....
- A paper is burnt.....
- A candle melts.....
- Banana peelings decay.....
- Ammonium chloride sublimates.....

5. All different forms of matter or substances are chemical in nature. Chemicals can broadly be classified as elements, compounds and mixtures.



Define;

- (i) An element (02 marks)

.....

- (ii) A compound (02 marks)

.....

(iii) A mixture (02 marks)

.....

(b) Write the chemical symbols of the following elements (05 marks)

- | | |
|---------------------|----------------------|
| i. Sodium..... | vi. Carbon..... |
| ii. Potassium..... | vii. Boron..... |
| iii. Beryllium..... | viii. Fluorine |
| iv. Silicon | ix. Helium..... |
| v. Neon..... | x. Zinc..... |

(c) Write the names of the following elements (05 marks)

- | | |
|-------------|----------------|
| i. Fe | vi. Mg |
| ii. Cu..... | vii. Ca |
| iii. H..... | viii. Ag |
| iv. O | ix. Pb |
| v. S | x. Al..... |

b) State how the following mixtures of substances can be separated. (05 marks)

MIXTURE	METHOD OF SEPARATION
Sulphur and Iron	
Chlorophyll pigments	
Liquid Oxygen and Nitrogen	
A mixture of sand and water	
A mixture of water and Ethanol	

SECTION B (10 marks)

Chemistry can be applied everywhere, a senior one student came up areas where chemistry is applied and matched them into the term 'chemistry' as shown in figure 2.

Do you agree with this student's idea? Explain your answer.



Figure 2:

**MERRY X-MAS AND A HAPPY NEW YEAR
TR. NELSON**

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¹ NAMUGONGO SECONDARY & VOCATIONAL SCHOOL. jumanellyo@gmail.com