Name…….....

signiture.....

545/1 CHEMISTRY (Theory)

August/2026

1 HR 15MINS

Uganda Certificate of Education

End of term two 2026

CHEMISTRY Paper 1

1 HR 15MINS

INSTRUCTIONS TO CANDIDATES:

This paper consists of three items.

Answers should be written in the spaces provided

Item one

Peter a businessman who runs a shoe boutique in Kampala city has received numerous complaints from customers regarding the poor quality of the shoe soles. As a result, he is looking to find high quality environmentally friendly shoe soles. Despite the availability of various shoe soles of different qualities and compositions in the global market, he does not know which ones to stock. The businessman is aware that the quality of shoe soles depends on the nature of the material used and he is now seeking advice from you on this matter.

Task: As a student of chemistry,

a. Explain the;

i, Category of the materials used (04 scores)

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ii. Suitability of the materials

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b. Advise him on the choice of the material he should opt for.

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Item two

Babirye sells fresh juice at a local market. She stores it in an uncovered clay pot and later notices that the juice has reduced in volume and tastes stronger. Nearby, wax candles kept under a hot iron roof become soft and bend. Ice blocks placed in a dry metal bucket turn into water, while droplets appear on the outside of the bucket. Her helper believes the bucket is leaking.

Tasks

(a) Identify **three** changes of state taking place in the scenario. (3 marks)

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(b) Using the particle model of matter, explain why the juice becomes stronger in taste after several hours. (3 marks)

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(c) Explain why droplets form on the outside of the metal bucket. (3 marks)

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(d) How can Babirye improve the storage of her juice to maintain its original quality throughout the day? Give **two** suggestions with reasons. **(4 marks)**

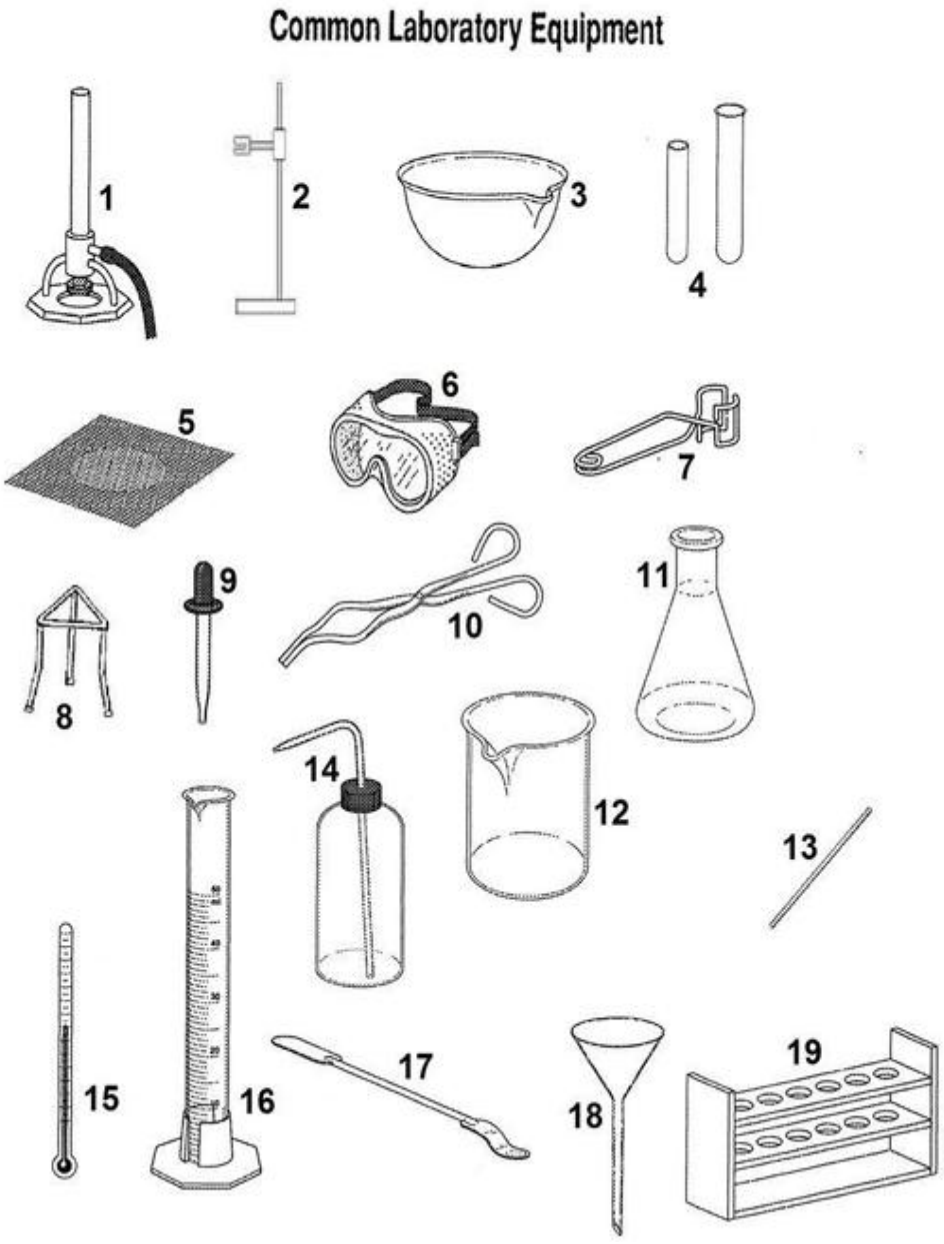
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Item three

A laboratory is special place where science experiments are called from. In carrying out experiments; materials called apparatus are used. Some apparatus are glass ware; others are made of plastics, others are made of metals while others are wooden. A chart of different apparatus in the laboratory is provided below. Study it and answer the questions that follow.



Name the apparatus shown by numbers below; (09 marks)

1.....

2.....

16.....

4.....

5.....

6.....

11.....

8.....

12.....

(b) The use of each apparatus 10 to 19 is given below, write the number of the apparatus to its use.(10 marks)

I. Measuring the temperature of substances in the laboratory.....

II. Measuring volumes of liquids.....

III. Used in dispensing distilled water.....

IV. To pick up and hold apparatus.....

V. For mixing and containing solutions.....

VI. Holds test tube in upright position.....

VII. Transferring solid chemicals in small amount.....

VIII. Used for filtration and in easily directing liquids and solutions.....

IX. Containing reaction solutions, used in titration .....

X. Used for stirring .....

END