

545/2

Chemistry

Paper

April/May, 2021

1 hour and 30 minutes

**NAJJA EDUCATION CENTRE EXAMINATIONS**

**Uganda Certificate of Education**

**S.1 End of term I chemistry**

**Instructions:**

**Answer all questions. Answers MUST be written on the answer sheets provided.**

No.1

The table below shows how temperature of naphthalene varies with time

Time(s)	0	30	60	90	120	150	180	210	240	270	300
Temperature ( $^{\circ}\text{C}$ )	100	93	85	78	78	78	78	60	43	25	25

- Plot a graph of temperature against time to represent the information in the table.
- Use the graph to determine the freezing point of naphthalene
- Draw the arrangement of particles of naphthalene at;
  - $60^{\circ}\text{C}$
  - $180^{\circ}\text{C}$

No. 2

- Kemigisha a senior one student who always attends the chemistry lessons, when she was home she saw a corroded plastic cup, tablets in a packet, a bare copper wire and always interacted with soap, alcohol, cosmetics and sprays.
  - As a classmate to Kemigisha, what is the use of each of the following substances talked about above?
  - State what Kemigisha saw at home is composed of.
- Chemistry as a science looks at the structure, composition and characteristics of matter, state the five steps you as a young scientist can follow to understand the science of chemistry.

No.3

- a) Game parks, mountains, museums, rivers, lakes, seas and oceans are places of adventure and discovery because of their beautiful scenery. Scientific facts are very interesting and practical as depicted in one of its branches called chemistry.
  - i. State the place where scientists go to adventure and discover scientific facts.
  - ii. Give the general names for materials used by scientists to discover new science on the earth.
  - iii. What name is given the act of carrying out trials while making observations in order to out with a scientific fact.
  - iv. When Akello added table salt in a container of water, the salt disappeared. State what had happened.
- b) Countries have constitutions as schools and families do have rules and regulations also science laboratories have rules to be followed. State five rules found applicable in you school chemistry laboratory.
- c) When carrying out experiments involving heating chemicals usually spill out due to the high kinetic energy which may dangerous to your fellow young scientists experimenting therefore as a young scientist set a rule to be included among those rules in your school laboratory to help on this situation if it happens such that it does not harm any one.

No.4

Odur is a senior one student in his term one in Kabong secondary school, when the chemistry teacher took them to the laboratory, he saw glassware, wooden, metallic, plastic, and modelled clay equipments.

- a) List any three
  - i. glassware equipments
  - ii. wooden
  - iii. metallic
  - iv. plastic in the laboratory which Odur probably saw.
- b) State any two ways in which the glassware are used to carry out experiments
- c) As a classmate of Odur, which set of equipment in the laboratory could be made of modelled clay?
- d) Explain why laboratory equipments are made of different materials
- e) Why do you think it better to use glass than plastic equipments when carrying out chemical investigations in the laboratory.

End