

545/2
Chemistry
Practical Paper
Nov. 2023
Time: 2 Hours

**WEST ANKOLE DIOCESE – CHURCH OF UGANDA
S.4 2024 ENTRANCE EXAMINATIONS**

**(N L S C)
CHEMISTRY
PAPER TWO
TIME: 2 HOURS**

INSTRUCTIONS

This paper consists of only one compulsory question.

Write the answers on the answer sheets provided.

1. Freezing is the change of the physical state of the substance from a liquid to a solid under constant temperature. Different substances have different uses depending on the physical state they exist in. For example, water in form of ice has many uses including decreasing swelling and pain after an injury or surgery. It is also used to preserve fish.
- Senior one students at your school have been provided with solid T and are required to determine the constant temperature at which T freezes, but they don't know how to do it.

Task.

As a resourceful senior three chemistry student, design an experiment to show how temperature varies with time when solid T is melted and cooled, help these students solve their problems. (28 scores)

You are provided with the following apparatus and materials. 3.0g of solid T, heat source, boiling tube, test tube, conical flask, glass beakers, plastic beakers, burette, pipette, thermometer, water, tripod stand, wire mesh and stop clock.

Using the science process skills, carry out the above task and write a report that includes the following.

- (a) Aim of the experiment
- (b) Hypothesis
- (c) Variables
 - (i) Independent variable
 - (ii) Dependent variable
 - (iii) Controlled variable and how it is controlled
- (d) Relevant apparatus and materials
- (e) Procedure of the experiment
- (f) Safety precautions taken
- (g) Recording of data
- (h) Analysis of data
- (i) Conclusion based on hypothesis stated

END