

Name:Stream:

Signature:

CHEMISTRY

Paper 1

July/August 2022

1¾ hrs.

UGANDA CERTIFICATE OF LOWER SECONDARY EDUCATION

END OF TERM II ASSESSMENT 2022

S.1 CHEMISTRY

Paper 1

1 hours 45 minutes

INSTRUCTIONS

Answer **all** questions.

Answers must be filled in the spaces provided.

FOR EXAMINER'S USE ONLY

Question No.	1	2	3	4	5	Total
Score						

1. Chemistry involves the study of how different substances change colours, shape, size and forms when reacted with another material or a set of substances. Chemistry has its roots well-settled in almost every aspect of our lives. It is so intricately involved in various processes, we fail to notice them at times.



Using examples, explain the role of chemistry in following sectors

(a) Agriculture

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(b) Health

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(c) Industry

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(d) Transport

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(e) Security

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2. In Uganda, many tonnes of wastes in terms of garbage, refuse or trash are produced in homes and communities in form of plastics, ceramics, metals and glasses. We can make a difference in our homes and our communities by reducing, or reusing, or recycling materials and also encouraging our neighbours to do the same



(a) Explain the term environmental pollution

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(b) Why do think environmentalists go against plastic?

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(c) What are the properties of ceramics?

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(d) Identify three materials in your home or communities that can be recycled apart from plastics.

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3. Study the picture below that show's unsafe behaviour of learners in a chemistry laboratory.



(a) Identify three unsafe activities shown in this laboratory.

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(b) If any of the dangers identified in a) above happened, write down what you would do.

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(c) What piece of safety equipment should be used to put out the fire?

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(d) If you were in charge of this laboratory, write down 5 rules you would setup to safeguard students against such activities

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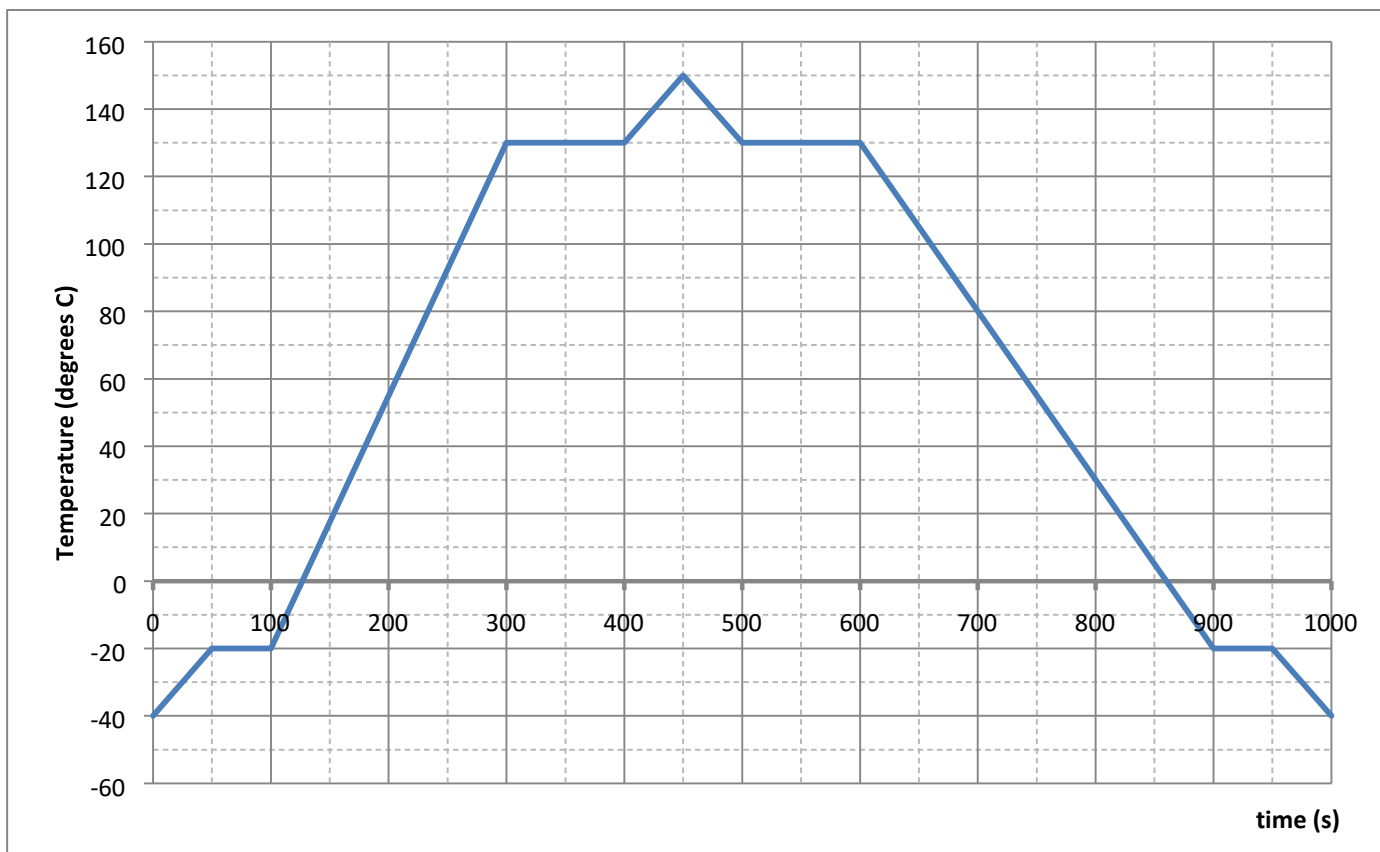
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4. Consider the properties of solids, liquids, and gases

(a) Fill in the following table for the common states of matter in terms of relative intermolecular bond strength (small, medium, or large), particle movement (vibrating only, flowing fast, or flowing slowly), , particle spacing (in contact or not in contact), and type of volume each has (variable or definite).

State of matter	Relative bond-strength	Particle movement	Particle spacing	Type of volume
Solid				
Liquid				
Gas				

(b) Below is Temperature vs. Time graph of a certain substance being heated and then cooled. Assume the same amount of energy is added or removed each second.



(i) On the graph, label where, if anywhere, the substance is: 1) solid, liquid, or gas; 2) melting, freezing, vaporizing, or condensing; 3) taking in energy or releasing energy

(ii) What are the melting, boiling, and freezing temperature of the substance?

- Melting point = _____,
- Freezing point = _____,
- Boiling point = _____,

5. You have recognized the chemical and physical changes that happen all around us.

Read each scenario.

(a) Decide whether a physical or chemical change has occurred and give evidence for your decision.

	Scenario	Physical or Chemical Change?	Evidence...
1.	You forgot to dry bread knife when you washed it and reddish-brown spots appeared on it.		
2.	You blow dry your wet hair.		
3.	In baking biscuits and other quick breads, the baking powder reacts to release carbon dioxide bubbles. The carbon dioxide bubbles cause the dough to rise.		
4.	A straight piece of wire is coiled to form a spring.		
5.	In a fireworks show, the fireworks explode giving off heat and light.		

(b) Write True (T) or False (F) in the second column of the table

1.		Changing the size and shapes of pieces of wood would be a chemical change.
2.		In a physical change, the makeup of matter is changed.
3.		Evaporation occurs when liquid water changes into a gas.
4.		Combining hydrogen and oxygen to make water is a physical change.
5.		Breaking up concrete is a physical change.

END

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