

Name: .....Stream: S.1 .....

CHEMISTRY

(THEORY)

NOVEMBER 2023

1 hour 45 minutes



KITANTE HILL SCHOOL

S.1 COMPETENCE BASED ASSESSMENT

END OF TERM III EXAMINATIONS 2023

CHEMISTRY (THEORY)

1 hour 45 minutes

**INSTRUCTIONS:**

- *This paper consists of **ten** questions.*
- *Answer all questions in the spaces provided.*
- *Illustrations in form of drawings should be made where necessary, with a sharp **pencil**.*

1. You have studied that chemistry is a central science because it is linked to many other scientific fields of study.

Show how the knowledge of chemistry is applied in the;

i) Biological field. **(3 scores)**

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ii) Physics field. **( 3 scores)**

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2. Engineers need to know that substances expand when they are heated. Mention three areas where engineers use this knowledge when designing things. **( 3 scores)**

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3. Many people are wondering why smoke is produced by some lighting/heating equipments e.g candles, kerosene lamps or even when burning fuels such as rubbish, paraffin, plastics etc whereas some heating/ lighting equipments such as stoves, gas cookers don't produce the smoke. To add on they wonder why some motorcycle engines produce smoke whereas some do not.

a) Using the knowledge of chemistry, describe what smoke is and explain the possible cause of smoke production. **(3 scores)**

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b) How is it possible for smoke particles to move in space? **(1 score)**

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4. Your mother heard on the radio during a certain programme that milk powder can be prepared from fresh Milk using the evaporation to dryness method. She asked you to suggest how the Milk powder can be prepared. What would you tell her. Put it in writing. **(6 scores)**

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5. a) Match the following polymer materials to the monomers they contain. **(6 scores)**

**POLYMER MATERIAL**

**MONOMER**

Paper

Ethene

Wool

Isoprene (2-methyl  
-1,3-butadiene)

Wood

Beta glucose

Starch

Amino acids

Polyethene

Alpha glucose

Rubber

b) State the use of the following fibres

i) Nylon.

**(2 scores)**

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ii) Cellulose.

**(2 scores)**

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6. During a classroom lesson, the motion was “wooden chairs are better than plastic chairs”. What points would you write to;

i) **propose** the motion.

**(03 scores)**

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ii) **oppose** the motion.

**(03 scores)**

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7. You noticed that a **wet** cloth you hanged inside a house during the night was **dry** by the time you checked on it in the morning after waking up. Explain how this was possible?

**(3 scores)**

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8. If you have an old aluminium saucepan at home, explain how you would use it to manufacture a spoon.

**( 4 scores)**

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9. During water transmission under the soil surface, **plastic pipes** are normally used instead of **metallic pipes**. What explanation can you write about this? **(4 scores)**

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10. In your village, people dispose a lot of plastic waste. However, the only solution they have to reduce their amount is collecting and burning them.

- a) As a concerned student, what can you write to the chairman informing him about the dangers that can result from burning plastics? **(5 scores)**

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- b) If the chairman calls you to address a group of people about other ways they can manage plastics instead of burning them, what would you tell them. Summarize your speech in writing. **(3 scores)**

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***Wish you nice holiday***