**CHEMISTRY C.A.T 2**

**TERM 1 -2021**

**FORM ONE**

**MARKING SCHEME:**

1. Putting off flames after use is one of the safety rules in the laboratory. State five other rules. (5mks)
* ***Always keep flammable substances away from flame.***
* ***Never smell gases directly, instead waft the gas towards your nose with your hand.***
* ***Label all the chemicals you are using to avoid confusion.***
* ***Never taste or eat anything in the laboratory to avoid poisoning.***
* ***Chemicals already used must always be disposed off safely to avoid contamination.***
1. (a) Name three frequently abused drugs. (3mks)
* ***Tobacco***
* ***Alcohol***
* ***Bhang***
* ***Khat (miraa)***

(b) State two long-term effects of drug abuse. (2mks)

* ***lung cancer***
* ***Heart failure***
* ***Liver problems***
* ***Mental disorders***
1. (a) What is sublimation? (1mk)

***It is a direct change from solid to gaseous without undergoing liquid state.***

(b) State four substances that sublime. (2mks)

* ***Aluminium chloride***
* ***Benzoic acid***
* ***Carbon (IV) oxide (dry ice)***
* ***Iodine***
* ***Anhydrous iron (III) chloride.***
1. The diagram below shows various states of matter. Study it and answer the questions that follow.

E

SOLID

LIQUID

GAS

A

B

C

D

F

1. State the processes labeled A to E. (3mks

A: ***melting***

B: ***Freezing***

C: ***Vaporization/ evaporation***

D: ***Condensation***

E: ***Sublimation.***

F: ***Deposition.***

1. Name two method of separating miscible liquids. (2mks)
* ***Simple distillation***
* ***Fractional distillation.***
1. Study the flame shown below.

*diagram*

1. Name the type of flame shown above. (1mk)

***Non-luminous flame***

1. Label the regions A, B and C. (3mks)

***A – pale blue region***

***B – Greenish blue region***

***C – Almost colourless region.***

1. Which region is the hottest? (1mk)

***A***

1. State two reasons why the above flame is preferred for heating. (2mks)
* ***It’s very hot***
* ***Does not produce soot.***
1. State the condition under which the above flame is produced. (1mk)

***When the air hole is open.***

1. State 4 career areas studied in chemistry. (2mks)
* ***Chemistry teacher***
* ***Laboratory technician***
* ***Pharmacist***
* ***Medical doctor***
* ***Public health officer.***
1. State reasons why most laboratory apparatus are made of glass. (2mks)
* ***Glass does not react with most laboratory reagents.***
* ***Easy to clean.***
* ***Easy visibility.***