

**ANESTAR SCHOOLS  
FORM I CHEMISTRY  
CAT I EXAM  
TERM I 2017**

**NAME: ..... ADM NO:..... CLASS...**

**Answer all the questions in the spaces provided.**

1) a. Define the term chemistry. - 1mk

It is the study of the structure, properties and composition of matter and the changes that matter undergoes

b. State three importance of studying chemistry as a subject. 3mks

1. It offers career opportunities in various fields
2. Improves living standards through food production to fight hunger.
3. The knowledge is used to manufacture drugs to fight diseases.
4. Manufacture of detergents

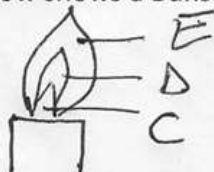
2) Explain why laboratory apparatus are made of glass. 2mks

1. For easy visibility while observing reactions taking place and recording the measurements
2. Glass do not react with most of the reagents used in the laboratory

3) a. State any three differences between a luminous flame and non-luminous flame. 3mks

- |   |  |
|---|--|
| <p><b>Luminous flame</b></p> <ol style="list-style-type: none"> <li>1. It produces soot</li> <li>2. It has four zones</li> <li>3. Used for lighting</li> <li>4. Flame is not noisy</li> </ol> | <p><b>Non-luminous</b></p> <ol style="list-style-type: none"> <li>1. It does not produce soot</li> <li>2. It has three zones</li> <li>3. used for heating</li> <li>4. the flame is always noise</li> </ol> |
|---|--|

b. The diagram below shows a Bunsen burner when in use.



Name the regions labeled E, D and C 3mks

- E - Pale blue zone  
D - Green blue zone  
C - Almost colourless zone

4) State three safety rules used in the laboratory. 3mks

1. Never eat or taste anything in the laboratory to avoid poisoning
2. Label all the chemicals you are using to avoid confusion
3. Always consult your teacher before trying an experiment to avoid accidents
4. Report any accidents to the teacher or laboratory technician immediately for necessary action

b. Name the solvent that is used in extraction of nuts. 1mk

Propanone solvent

6) a. Define the term sublimation. 1mk

Is the process whereby a substance changes from solid to vapour directly or vapour to solid without forming a liquid

b. state two substances that undergoes sublimation. 2mks

Benzoic acid

Aluminium chloride

Anhydrous iron(III) chloride

- Carbon(IV) oxide (dry ice cube)

7) The following set up was used to separate sand and water. study it and answer the questions that follows.



i. Identify the method of separation. 1mk

Filtration method

ii. Give a special name given to solid X and liquid Y. 2mks

X - Residue

Y - Filtrate

iii. State an advantage of this method over decantation. 1mk

In decantation the water collected in another because it is not clear because it contains small suspended particles in it.

8) What is the name given to the hottest zone of non luminous flame? 1mk

Pale blue zone/region

9) State two long term effects of drug abuse. 2mks

Alcohol abuse leads to liver cirrhosis

Prolonged use of Khat leads to addiction

Bhang misuse leads to mental disorders

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