**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Adm.No.­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Class \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**FORM ONE**

**CHEMISTRY**

**TIME: 2 Hours**

**MWAKICAN JOINT EXAMINATION TEAM (MJET) TERM 1 2019**

**Instructions to Candidates**

**(a) Write your name and admission number.**

**(b) Answer ALL the questions in this question paper.**

**(c) All your answers must be written in the spaces provided in this question paper.**

**(d) Students must answer all questions in English**

**FOR EXAMINER’S USE ONLY**

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| **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATES SCORE** |
| **1-21** | 100 |  |

***INSTRUCTIONS***

1. ***Answer all the questions in the spaces provided***
2. a) What is matter? (1mk)

 b) Name the three states of matter. (3mks)

1. a) Name three commonly abused illegal drugs (3mks)

b) State two effects of alcohol abuse on the family and society. (2mks)

1. a) What is chemistry? (1mk)

b) Name three careers related to chemistry or that require chemistry knowledge. (3mks)

1. The diagrams below represent the states of matter. Identify the state represented by each of the diagrams. (3mks)

State 1 State 2 State 3

1. Name the apparatus that can be used for each of the following purposes. (5mks)
2. Measuring temperature –
3. Measuring small exact volume of liquids or solutions –
4. Pouring liquids in narrow apparatus –
5. Separation of immiscible liquids –
6. Weighing little quantities of solids -
7. Name the methods which can be used to separate each of the following mixtures. (6mks)
8. Iron fillings from maize flour –
9. Pure water from salty water –
10. Coloured flower extracts –
11. Paraffin from crude oil –
12. Iodine from sodium chloride –
13. Alcohol and water –
14. Oil from nuts –
15. a) What is a flame? (1mk)

b) Name the two types of flames used in the laboratory (2mks)

c) Give any three differences between the two types of flames stated in (b) above. (3mks)

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 d) Apart from a Bunsen burner, name three other sources of heat used in the laboratory.

(3mks)

1. A Bunsen burner is made of several parts. A chimney and collar are some of the main parts. State the function of each of these parts. (2mks)

Chimney –

Collar –

1. Study the flow diagram below and use it to answer the questions that follow



1. Identify the process laballed A,B,C,D and E. (5mks)

A -

B -

C -

D -

E -

1. Name two substances which can undergo the process represented by process B. (2mks)
2. Give two reasons why most apparatus in the laboratory are made of glass. (2mks)
3. a) Write the chemical symbol of each of the following elements. (4mks)
4. Hydrogen -
5. calcium -
6. oxygen -
7. chlorine -

(b) Give the name of the element represented by each of the following chemical symbols (6mks)

* K –
* S –
* Cu –
* C –
* Fe –
* Ag –
1. Identify the following substances as mixture, compound or element. (6mks)
2. Maize and beans –
3. Ink –
4. Oxygen –
5. Water –
6. Common Salt –
7. Anti acid tablets –
8. Below is a chromatogram. Study it and answer the questions that follow



A, B and C are suspected drugs. I, II and III are samples of urine from long distance runners.

1. Which long distance runner had taken the suspected drug A? (2mks)
2. Which suspected drugs were detected in the urine of the following runners? (3mks)

I -

II -

III –

1. Name the parts labeled X and Y (2mks)

X –

Y –

1. a) Define
2. melting point (1mk)
3. Boiling point (1mk)

 (b) What is the effect of impurities on melting point? (1mk)

1. a) State two differences between chemical and physical changes. (2mks)

|  |  |
| --- | --- |
| Chemical change | Physical change |
|  |  |

(b) Classify the following as physical or chemical change. (6mks)

1. Melting of candle wax –
2. Rusting of iron –
3. Freezing of beer –
4. Striking a match stick till it burns –
5. Heating of glass till it melts –
6. Explosion of a bomb or gunshot –
7. The diagram below shows separation of a mixture of ethanol whose boiling point is 780C and water whose boiling point is 100oC. Study it and answer the questions that follow.
8. i) Name the method of separation. (1mk)
9. Give a reason why this method was used. (1mk)
10. Name the parts labeled E to I. (5mks)

E-

F-

G-

H-

I –

1. Identify liquid X. (1mk)
2. A student set up an experiment to separate iodine from common salt as shown below.
3. Name the method of separation (1mk)
4. Identify
5. The black solid (1mk)
6. The residue (1mk)
7. What name is given to the reverse of this process (1mk)
8. State THREE laboratory safety rules. (3mks)
9. State any TWO importances of studying chemistry. (2mks)
10. Study the diagram below and answer the questions that follow



1. Name the apparatus marked x. (1mk)
2. Which types of liquids are separated by this method? (1mk)
3. Name two liquids that can be separated by this method. (1mk)
4. State two applications of fractional distillation. (2mks)